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ABSTRACT

The Greater Madison Task Force on Occupational Skills Education was formed to develop and implement a plan that would improve occupational skills education for area high school students. The task force members included 10 members from business and labor, 7 members from state agencies or higher education, and 14 members from the public school sector. The task force conducted its work through eight subcommittees dealing with special topics and with regular meetings of the entire task force. The task force identified four major goals that should be achieved in any long-range plan for the improvement of secondary school occupational skills education. These goals deal with curriculum, staff development, school and business partnerships, and organizational structure. Twenty-three recommendations were offered to implement the goals. In addition to setting forth the four major goals and recommendations, this final report contains eight subcommittee reports, each focusing upon a particular aspect of occupational skills education; the summaries of two surveys, one of businesses and one of teachers; and the conclusions of this data analysis. (KC)

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Planning and Implementing
Occupational Skills Education

The Final Report of:

The Greater Madison Task Force
for Planning Occupational Skills Education

August 22, 1984

CE039719

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PREFACE

It is with great pleasure that the members of the Greater Madison Task Force on Occupational Skills Education present this report to the cooperating school districts in the greater Madison Area. The report describes the activities of the Task Force and provides the goals, recommendations, and strategies judged important in the long-range planning of occupational skills education for secondary school students.

The Task Force was initiated in January of 1983 by Dr. Donald A. Hafeman, Superintendent, Madison Metropolitan School District. Since that date the thirty-one task force members and Dr. Robert Sladky, project coordinator, have worked continuously in the preparation and discussion of issue papers and the development of this final report.

In the process the Task Force members heard from a great many persons in the community, utilized the resources of this community and the state in obtaining facts, perspectives, and data on occupational and employment practices. The Task Force members became acquainted with educational and partnership arrangements in various communities and schools across the state and, to some extent, across the nation. A special thanks must be extended to the many people who assisted the Task Force by giving of their time and expertise.

This final report contains eight rather extensive sub-committee reports, each focusing upon a particular aspect of occupational skills education, the summaries of two surveys--one of businesses and one of teachers, and then the conclusions of this data analysis. The report sets forth four major goals and twenty-three recommendations for the consideration of those who desire to undertake a long-range effort in the improvement of secondary school occupational skills education.

It is recognized that there are different views on what aspects of occupational skills education should be emphasized and that there are various perspectives on what steps should be taken for improvement. The Task Force urges that persons who are concerned with the improvement of occupational skills education in the secondary schools read this report carefully and engage in extended discussions on what steps would be appropriate for the youth in their community.

Respectfully Submitted
on Behalf of the Task Force

Harland E. Samson, Chairperson

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EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

The Greater Madison Task Force on Occupational Skills Education was initiated in January of 1983 by Dr. Donald A. Hafeman, Superintendent, Madison Metropolitan School District in cooperation with the School Districts of DeForest, McFarland, Middleton-Cross Plains, Monona, Oregon, Sun Prairie, and Waunakee. The Task Force was charged with the development and implementation of a plan that would improve the occupational skills education for area high school students. The need for such a Task Force was found in the rapidly changing nature of the world of work and the work place, accelerating technology, and the economic environment expected in future years.

The Task Force members included ten members from business and labor, seven members from state agencies or higher education, and fourteen members from the public school sector. The Task Force conducted its work through eight sub-committees dealing with special topics and with regular meetings of the entire Task Force.

The term "occupational skills education" was interpreted as an overriding term covering three major components: basic skills, employability skills and vocational education. The Task Force felt that an essential part of the K-12 public school mission was to provide curriculum and learning experiences that would assure every student the opportunity to explore potential careers as well as acquire the skills necessary for the transition from school to the world of work. Critical in such effort is that all students have ready and equal access to well-planned, high quality, and effective occupational skills programs.

The occupational skills education programming now conducted by the cooperating schools is, in many ways, commendable. However, there are additional expectations and new initiatives necessary in both the quality and delivery of occupational skills education. Accordingly the Task Force identified four major goals that should be achieved in any long-range plan for the improvement of secondary school occupational skills education.

These goals deal with 1) curriculum, 2) staff development, 3) school and business partnerships, and 4) organizational structure.

Goal 1 - Curriculum

> A comprehensive occupational skills education curriculum encompassing a balanced program of basic skills, employability skills, and vocational education, appropriate to the unique needs of each individual student, should be accessible to all secondary school students regardless of school or district of attendance.

Ten recommendations under this goal deal with entrance requirements, employability skills, vocational courses, competency based instruction, common completion standards, programs for special needs students, ready and equal access for all students, and basic technologies.

Goal 2 - Staff Development

> Effective programs of occupational skills education require school districts to provide comprehensive staff development programs which will keep teachers informed of practices and emerging technology regardless of their discipline.

Four recommendations under this goal deal with long-term inservice planning, in technology, employability skills, and current business practices, and in staff exchanges.

Goal 3 - School/Business Partnerships

> The scope and nature of school-community-business-industry cooperative arrangements need to be expanded to assure quality occupational skills education. There should be an increase in the sharing of staff, facilities, and cooperative education placements between schools and community firms.

Four recommendations under this goal deal with partnership arrangements, joint use of business, community, and school training facilities, and the civic responsibility of businesses.

Goal 4 - Organization Structure

> School districts should develop structures that encourage a high degree of flexibility and sharing among all educational providers in a geographic area to accommodate students' needs for occupational education and to build a strong base for life-long learning.

The five recommendations under this goal deal with the creation of a Madison area coordination and articulation council, advance placement and standing for students going into postsecondary technical instruction, shared resources among schools, expanded occupational experiences, and equal credit for occupational skills courses that meet mandated course requirements.

It is recognized that there are different views on what aspects of occupational skills education should be emphasized and that there are various perspectives on what steps should be taken for improvement. The Task Force urges that persons who are concerned with the improvement of occupational skills education in the secondary schools read this report carefully and engage in extended discussions on what steps would be appropriate for the youth in their community.

PLANNING AND IMPLEMENTING

OCCUPATIONAL SKILLS EDUCATION

PLANNING AND IMPLEMENTING OCCUPATIONAL SKILLS EDUCATION

Introduction

This report is the result of nearly two years of investigation, discussion, and debate by a broadly based community committee drawn from eight school districts in central Dane County. The project was sponsored by the Madison Metropolitan School District in cooperation with seven other school districts in the greater Madison area. The project was funded in part by a grant from the Wisconsin State Department of Public Instruction. Considerable effort has been made to keep the report document brief and the narrative as concise as possible. To that end considerable data have been relegated to the Appendices and much of the interesting and incisive discussion of committee members and resource persons is not reported. This report provides information on the background and nature of the task force, task force activities, and the conclusions, goals and recommendations made by the Greater Madison Task Force for Planning Occupational Skills Education.

Factors Prompting the Development of the Task Force

The structural changes in the economy in the past 40 years have significant implications for the education and skills needed by young persons as they make their transition from school to the world of work. As our economy continues toward an information service economy, utilizing computer and other high technology equipment, the complexity of the work place increases making greater demands on young workers than ever before. Also, educational institutions are being exposed to the same changes that are taking place in the business sector--higher standards, competition, and expectations of greater productivity and quality. These changes are of critical importance to school personnel who have the responsibility for curriculums that will provide youth with needed education and skills.

Since 1965, Wisconsin public high schools have been challenged to provide a comprehensive curriculum which includes courses and programs necessary to develop the occupational skills of students. It was expected that each school would develop and implement programs based on the interest of students and the employment potential of the community. However, with the rapid changes in technology and in the needs of employers, occupationally oriented curriculums are in a constant state of change. The continuing emergence of new occupations, rapidity of change in equipment and processes, and the need for extended programs of instruction for entry into many occupations suggest that careful assessment be made of the occupational skills curriculum in every school. Inter-school cooperation, school and business partnerships, and improved articulation between high school and postsecondary institutions seemed deserving of special attention.

Because of these concerns and others it was felt that a task force consisting of leaders in labor, business, industry, government, and education should examine the employment opportunities in the Greater Madison area, identify, if possible, the emerging occupations and occupational changes, and suggest a long-range plan for the improvement of occupational skills education for Madison area high school students.

Membership of the Task Force

The Task Force consists of 31 members plus the chairperson and the staff coordinator. Ten members are from the private sector in business and labor. Six members are from state agencies or higher education. Fourteen members are from K-12 public school cooperating school districts--five are administrators, three are vocational coordinators, and six are teachers. Of the 31 Task Force members, seven are educators from the Madison Metropolitan School District. Please see Attachment A for a complete list of Task Force Members.

Cooperating School Districts

Those School Districts contiguous with the Madison Metropolitan School District were invited to participate in the Task Force for Occupational Skills Education. The following districts are cooperating in the study: Monona Grove, Middleton-Cross Plains, Oregon, Sun Prairie, De Forest, McFarland, and Waunakee. Each of these districts has membership on the Task Force.

The Charge to the Task Force

The Task Force members were appointed by Dr. Donald A. Hafeman in December, 1982, and given the following charge at the first Task Force meeting in January, 1983.

> "I charge the Task Force with the development and implementation of a plan to provide occupational skills to Madison area high school students. This plan will be based on the cooperative use of resources and focus on helping young people make the transition into adult occupations. Its underlying theme will be to identify the high school's role in occupational training."

Philosophical Statement Regarding Occupational Skills Education

One of the common elements shared by all persons is that of a career or a work pattern that develops throughout life. All people, regardless of ethnic background, social status, gender, geographic location, or handicapping condition, are involved with decisions about career and preparation for a productive life. This process involves the totality of experiences through which a person learns about and prepares

for a meaningful and satisfying life. While the process covers the greater part of an individual's life span, it is particularly critical for those moving from adolescence to adulthood. The responsibility for this process has been placed on the educational system.

Therefore, integral to the mission of the K-12 public schools is that they provide curriculum and learning experiences that will assure every student the opportunity to explore potential careers as well as acquire skills necessary for the transition from school to the world of work.

Definitions and Relationships of Key Concepts

The term "Occupational Skills Education" is perceived by the Task Force as an overriding term covering three major components: basic skills, employability skills, and vocational education.

Basic Skills--those fundamental skills and knowledges necessary for an individual to be a fully participating and contributing member of society. Basic skills include such skills as reading, writing, computation, speaking, listening, human relations, critical thinking, problem solving, and the basics of science, government, and economics.

Employability Skills--those general skills and knowledges needed by all persons if they are to be effective in seeking, obtaining, and retaining employment; and career development experiences through which students learn about the world of work and their own occupational interests and capabilities. Employability skills include such skills as verbal communication, willingness to work, ability to work with others, how to prepare a resume, how to complete an application form, how to conduct an interview, willingness to follow direction, initiative, flexibility, and ability to learn new tasks.

Vocational Education--that part of education which is specifically intended to prepare individuals to perform meaningful work in a given occupational area. Vocational education is preparation for employment. The specific skills and knowledges provided through vocational education are those associated with an occupational field and based on the needs of students and the requirements of potential employers. The dignity of young people, their competence in basic skills, their capacity for self-determination and their ability to perform meaningful work is enhanced through the applied learnings acquired through vocational education.

Sub-Committee Topics and Activities

The Task Force identified a rather lengthy list of concerns related to occupational skills education at the secondary school level. These concerns were grouped under the following eight major topics:

1. Competencies expected of high school graduates.

2. Occupational skill courses that should be available to high school students.

3. Support programs for diverse student groups.

4. Training opportunities in the community.

5. Projected employment opportunities.

6. Staff development and school improvement projects.

7. Articulation with post-secondary and higher education.

8. Expected technological changes over the next 20 years.

Sub-committees of Task Force members were appointed to study and make recommendations on each. Each sub-committee drew on individuals and community groups to provide data and perspectives. The background statements and question(s) addressed by the sub-committees are shown on Attachment B.

Survey of Business Community

The Task Force was briefed by Dr. Charlotte Oinonen of the Wisconsin Department of Public Instruction, on the results of the Parker Study. The Parker Study, a joint effort of the Parker Pen Company and the Department of Public Instruction, inquired of Wisconsin business and industry as to perceptions about the preparation of youth for the world of work. The findings indicated that 84 percent of the employers responding agree or strongly agree that it is the responsibility of high schools to provide high school graduates a comprehensive vocational education program which leads to competencies and job preparation skills for the world of work. The data from the Parker Study were used by the Task Force but additional data from local employers on other aspects of employment and expectations of high school graduates was desired.

Several of the sub-committees collaborated on the development of a survey instrument that was distributed to a sample of 2,200 of the 7,700 employment units in Dane County. A return of 30.5 percent (695) was tabulated and analyzed. The findings of the Task Force study of employers in the greater Madison area were consistent with those reported in the Parker study. However, the Task Force study revealed additional facts about the percent of businesses employing high school graduates, job skills required, willingness to join in partnership or cooperative arrangements, and labor force projections in the area. A summary of the business survey results is shown on Attachment C.

Survey of Vocational Teachers

All of the school districts cooperating in the Task Force effort had completed an evaluation of their vocational programs within the last six years. These results were shared with the Task Force members. In addition Dorothy Dales, from UW-Stout, presented to the Task Force findings from research sponsored by the Department of Public Instruction

on the high school vocational programs across the entire state. The follow-up data shows that completors of high school vocational education programs had much higher employment rates than those who did not finish or never enrolled in vocational education. Also, the unemployment rates of vocational program graduates were consistently well under the teenage unemployment rate in Wisconsin. As to the adequacy of high school graduates in basic skills there is marked difference of opinion. Employers generally are not satisfied with secondary school graduates' basic skills while the professional educators feel that most students are adequately prepared in the basic skills.

The Task Force felt it would be desirable to obtain additional information about vocational programs and services to students with special needs. A survey was designed and distributed to the vocational teaching staff of the eight school districts cooperating in the project. After all surveys were collected and tabulated, two workshop sessions were held with a selected number of vocational teachers covering the survey and the other findings of the Task Force. See Attachment D for the results of the survey of vocational teachers.

Conclusions

The Task Force studies, presentations and data provided by resource persons, and extensive deliberations resulted in the following conclusions:

1. The work place of the 1980s is changing rapidly as a result of economic and technological evolution. Because these changes impact all areas of the high school curriculum, educational programs within the secondary schools must also change. As curriculum changes, schools and school faculties must also change.

2. If America is to be competitive and if students are to be equipped with suitable occupational skills for work in the future, schools must continually review, revise, and update their entire curriculum in regard to the technological/information revolution. Particular care must be given to removing outmoded curriculum content as well as developing new curriculum areas where necessary.

3. As a result of the pervasiveness of technological change, there are certain skills which all high school graduates should possess. Employers value employees who are able to learn new tasks and develop new skills and they prefer to hire trainable workers who possess basic occupational skills. Employers will provide specific and specialized skill training on the job.

4. Entry into vocational study requires students to have attained certain competencies in the basic skills. If they have not they will have difficulty learning, likely not attain satisfactory levels of vocational competence, may not meet graduation requirements, and may experience difficulty in obtaining and maintaining employment. Admission to a vocational program cannot be viewed as an alternative for students who lack competencies in the basic educational skills.

5. The vocational education component of occupational skills education should serve: (a) those persons who will be going directly from high school into the employment market; (b) those persons who will be seeking further education in a postsecondary occupational curriculum; and (c) those persons who plan to enter a four year college. Thus, some form of appropriate vocational education should be available to all high school students.

6. Each high school presents a student body with a diversity of students abilities, interests, motivations, and learning needs. Several diverse groups require specialized programs. For occupational skills education to be effective, the unique learning needs of students in these diverse groups must be recognized.

7. Private sector employers have a strong interest in developing school-business partnerships and other joint arrangements to assist local schools in providing students with occupational experience. Private sector employers involved with cooperative education programs indicate a high degree of satisfaction with both the program and the students.

8. Articulation among local high schools and between high schools and postsecondary vocational-technical institutions is an important aspect of vocational education for high school age jouth. Effective models of articulation do exist and the potential for expansion through advanced placement or contracting is considerable.

9. Two major occupational areas that will be available to high school students seeking employment after high school completion are service occupations and clerical occupations. Employment in Dane County will remain extremely competitive despite a projected work force growth rate of 10 to 12 percent annually. High school graduates entering the work force will need strong vocational preparation to secure good positions.

10. In order for high school graduates to succeed in Madison's comeptitive job market, well-planned, high quality, and effective vocational education programs must be maintained by all local schools. Emphasis must be placed on technology that provides insights, background, and academic awareness to a specific discipline. Particular emphasis should be placed on programs which prepare students for occupations critical for the local labor market.

Goals and Recommendations

The Task Force identified four broad goals that should be achieved in any long-range plan for the improvement of secondary occupational skills education. These goals deal with:

1) curriculum,

2) staff development,

3) school and business partnerships, and

4) organizational structure.

These goals are not inconsistent with the programming presently conducted by the school districts involved with this project; but they do, however, set some additional expectations and call for new initiatives in both the quality and delivery of occupational skills education.

GOAL I - CURRICULUM

A COMPREHENSIVE OCCUPATIONAL SKILLS EDUCATION CURRICULUM ENCOMPASSING A BALANCED PROGRAM OF BASIC SKILLS, EMPLOYABILITY SKILLS, AND VOCATIONAL EDUCATION, APPROPRIATE TO THE UNIQUE NEEDS OF EACH INDIVIDUAL STUDENT, SHOULD BE ACCESSIBLE TO ALL SECONDARY SCHOOL STUDENTS REGARDLESS OF SCHOOL OR DISTRICT OF ATTENDANCE.

In order to achieve this goal, it is recommended that the school districts:

Basic skills

1. Assure that all students achieve functional understanding and competence in the basic skills which are fundamental to all occupations.

Entrance prerequisite

2. Assure that students, prior to entering any vocational education course, demonstrate competencies in the basic education skills necessary for successful performance.

Employability skills

3. Include content in all curriculums, grades 7 through 12, that will develop and strengthen instruction of employability skills.

Full range of vocational courses

4. Make available a full range of vocational education courses necessary to meet the students' needs for existing or projected employment opportunities.

Reflect current technology

5. Assess present vocational courses to assure they are occupationally relevant, that curriculums reflect the current and emerging technology of the occupational field, and that the applications of learning are made through arrangements that will assure realistic occupational exposure.

Competency based

6. Assure that all vocational instruction is competency based and that students are provided certificates which identify the competencies mastered.

Common completion standards

7. Develop in cooperation among school districts and between schools and Madison Area Technical College as well as private post-secondary vocational schools a common set of competency based completion standards that will assure employers and post-secondary institutions that program completers have attained a consistent level of achievement.

Programs for special needs students

8. Develop specific occupational skills education programs for special needs students that will maximize each student's potential. The delivery of special needs programs, as is true for all occupational programs, should be the shared responsibility of the entire school faculty.

Ready and equal access

9. Cooperate with other schools and with Madison Area Technical College and other post-secondary vocational schools to assure students from all schools have ready and equal access to occupational instruction.

Basic technologies

10. Recognize that many occupational courses provide basic technological content needed by all students regardless of occupational or professional objective. Therefore, all students should have instruction in areas such as keyboarding, microcomputer operation, applied technology, and bio-genetics.

GOAL II - STAFF DEVELOPMENT

EFFECTIVE PROGRAMS OF OCCUPATIONAL SKILLS EDUCATION REQUIRE SCHOOL DISTRICTS TO PROVIDE COMPREHENSIVE STAFF DEVELOPMENT PROGRAMS WHICH WILL KEEP TEACHERS INFORMED OF PRACTICES AND EMERGING TECHNOLOGY REGARDLESS OF THEIR DISCIPLINE.

In order to achieve this goal it is recommended that the school districts, individually or collectively:

Long-term inservice planning -- changing technological world

1. Provide a planned program of in-service and staff development for teachers and school staff that would allow regular renewal of knowledge and the applications of technology to their discipline. This plan should be reviewed annually and projected forward for five years.

Employability skills inservice training

2. Annually allocate at least 25 percent of available in-service time a) to expose all teachers and certificated staff to the importance and necessity of employability skills, b) to develop means of incorporating employability skills instruction into their content areas, and c) to explore and understand career opportunities for high school graduates.

Current business practices and employer expectations	3. Arrange through partnerships, cooperative agreements, or other joint efforts with business, opportunities for all school staff to be informed of current business practices and the expectations local employers have to the K-12 school. Particular emphasis should be placed on exposing school staff to overall business operations and management.
Staff exchanges	4. Arrange staff exchanges, use business personnel as supplementary instructors in secondary school courses, and set up summer internships for teachers in local business.

GOAL III - SCHOOL/BUSINESS PARTNERSHIPS

THE SCOPE AND NATURE OF SCHOOL-COMMUNITY-BUSINESS-INDUSTRY COOPERATIVE ARRANGEMENTS NEED TO BE EXPANDED TO ASSURE QUALITY OCCUPATIONAL SKILLS EDUCATION. THERE SHOULD BE AN INCREASE IN THE SHARING OF STAFF, FACILITIES, AND COOPERATIVE EDUCATION PLACEMENTS BETWEEN SCHOOLS AND COMMUNITY FIRMS.

In order to achieve this goal it is recommended that the school districts, individually or collectively:

Partnership arrangements	1. Develop partnership arrangements with as many employers as possible in the greater Madison area. The purpose of such arrangements, regardless of form or scope, is solely to augment, improve, and enhance the level of program quality and instructional realism provided by the current teaching staff.
Joint use of business and community training facilities/programs	2. Contact employers and agencies identified through the Task Force survey who are interested in developing agreements on the joint use of business and community training facilities and training programs in the delivery of secondary school occupational skills education programs.
Business use of school training facilities/ programs	3. Initiate discussions with representatives of business, industry, state agencies, and unions to determine how school facilities and programs might be utilized to meet the training needs of local firms. Special emphasis should be devoted to creating an environment where educators can share their skills with business personnel who are involved in training new employees.
Civic responsibility	4. Expect that every business will consider it a civic responsibility to help schools by providing resource persons, exposure to current technology and practice, internships, cooperative placements, and partnership arrangements.

GOAL IV - ORGANIZATIONAL STRUCTURE

SCHOOL DISTRICTS SHOULD DEVELOP STRUCTURES THAT ENCOURAGE A HIGH DEGREE OF FLEXIBILITY AND SHARING AMONG ALL EDUCATIONAL PROVIDERS IN A GEOGRAPHIC AREA TO ACCOMMODATE STUDENTS' NEEDS FOR OCCUPATIONAL EDUCATION AND TO BUILD A STRONG BASE FOR LIFE-LONG LEARNING.

In order to achieve this goal it is recommended that the school districts, collectively:

Coordination and articulation council

1. Create a coordination and articulation council that would a) facilitate joint curriculum efforts among the schools including Madison Area Technical College as well as other providers of occupational education, b) serve as a mechanism for implementing recommendations of the Task Force, c) project employment and training needs for the greater Madison area, and d) facilitate communication links with all appropriate groups and agencies.

Advanced placement, advanced standing, program efficiencies, and reduce duplication

2. Arrange for curriculum articulation among the school districts and between schools and the Madison Area Technical College as well as private post-secondary vocational schools to assure advanced placement, advanced standing, program efficiencies and to reduce duplication in the educational programs of youth.

Share resources between high schools

3. Create cluster or pod arrangements of schools in the greater Madison area so that participating high school districts can share facilities, personnel, students and education programs to assure the availability of comprehensive occupational education programs appropriate to the employment needs in the Dane County area.

Expand supervised occupational experiences

4. Expand the opportunity for youth to gain supervised occupational experience under the direction of trained coordinators. Only those students enrolled for credit programs incorporating cooperative or directed occupational experience should be released from the structured school day.

Equal content gives equal credit for mandated courses

5. Assure that occupational skills education courses, which develop competencies expected in content areas mandated for secondary school graduation, apply equally with other academic courses toward meeting such graduation requirements.

The Long-Range Plan

The development and implementation of a long-range plan for secondary school occupational skills education in the greater Madison area will come as a result of the adoption of the four main goals and the achievement of the recommendations under each. As indicated, in some areas the schools and school districts may proceed individually toward occupational skills education improvements, while in other instances action may need to be taken collectively as well as in concert with business or other institutions. As committees or individuals undertake implementation, it is strongly suggested that reference be made to the eight sub-committee reports contained in Attachments E through L. These sub-committee reports contain a wealth of supplementary information, additional recommendations, and numerous strategies for the achievement of occupational skills education improvement.

In all likehood there will be not one, but several long-range plans. Each plan will focus on a particular dimension of improvement and will involve the schools, agencies, and institutions affected by the plan. Not readily evident in the report is the necessity to include parents in all planning activity. It is essential that in any long-range planning effort, parents be involved and made aware of the business expectations of high school students regarding basic skills, employability skills, and vocational skills. Equally important is that educators, students, parents and the community be made aware of the consequence of these improvements in secondary education. With these improvements a community will be more likely to have an outstanding pool of workers, highly productive citizens, and an improved quality of life. The consequences of not implementing these recommendations would be higher levels of unemployment, fewer opportunities for youth, limited business and economic opportunity, and a general decline in community well-being.

ATTACHMENT A - MEMBERSHIP

GREATER MADISON TASK FORCE

FOR PLANNING OCCUPATIONAL SKILLS EDUCATION

August 22, 1984

Harland Samson Chairperson	University of Wisconsin - Madison
John Bolles	Monona Grove State Bank
August Cibarich	Department of Industry, Labor and Human Relations
Marvin DeYoung	Middleton-Cross Plains School District
Nancy Everson	Sun Prairie School District
Patrick Fleming	DeForest Area School District
Barbara Hagens	Waunakee Community School District
Cindy Huber	McFarland School District
Mary Kauper	Select Careers
Edward F. Killeen	Wisconsin Power and Light Company
John Krauss	Nicolet Instrument Company
Audrey Lehman	Madison Metropolitan School District
Gordon McChesney	Monona Grove School District
Donald McCloskey	Madison Metropolitan School District
Reinhold Meihsner	Madison Metropolitan School District
Patrick Mooney	Madison Metropolitan School District
William Morgan	Madison General Hospital
David Newby	Madison Federation of Labor AFL-CIO
Daryush Nowrasteh	Madison Area Technical College
Jim Olstad	Oregon School District
Harold J. Polzer	Oscar Mayer & Company
Jack Reed	Waunakee Community School District
Susan Rood	Madison Metropolitan School District
Stuart Sears	Madison Business College
Charles Stovall	Madison Metropolitan School District
Merle Strong	University of Wisconsin - Madison
Russel Weisensel	Wisconsin Agri-Business Council, Inc.
Dean Wessels	Madison Area Technical College
James Worthington	Badger Broadcasting, Inc.
Staff:	
Robert J. Sladky	Task Force Coordinator
Jeanie Dunphy	Special Assistant to the Chairperson
Liaisons:	
Glenn Davison	Board of Vocational, Technical and Adult Education
Paul Speight	Bureau of Vocational Education Department of Public Instruction

ATTACHMENT B - SUBCOMMITTEE ACTIVITIES

GREATER MADISON TASK FORCE FOR PLANNING OCCUPATIONAL SKILLS EDUCATION

ACTIVITIES OF SUB-COMMITTEES --- GREATER MADISON TASK FORCE
FOR PLANNING OCCUPATIONAL SKILLS EDUCATION

The purpose of the sub-committees is to permit in-depth studies on selected topics to be developed and discussed by a smaller work group. This also provides the opportunity to involve and utilize other community members without increasing the main task force to an unmanageable size. It is expected that the sub-committee chairperson will schedule sub-committee meetings independent from the regular monthly meetings of the task force. Specifically, it is expected that each sub-committee will:

1. Clarify and define specific issues and concerns assigned to the sub-committee.

2. Recommend to the Task Force Chairperson the names of other persons the sub-committee would like to have added to that work group.

3. Gather and review appropriate information (research studies, data, and literature) relative to the sub-committee's issues and concerns.

4. Relate this information to the Greater Madison Area schools' and community's programs for providing occupational skills education.

5. Provide periodic progress reports at the regular task force meetings.

6. Make recommendations to the Task Force for improving occupational skills education of Madison area high school students concerning the specific issues and concerns assigned to the sub-committee.

7. Prepare a written report to the Task Force which describes the work of the sub-committee.

Some sub-committees may find that they can complete their task in a few months while others may take longer. However, it is expected that all sub-committees will have their recommendations and a written report to the task force chairperson by November 1, 1983.

HES/as
3/14/83

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GREATER MADISON TASK FORCE FOR PLANNING OCCUPATIONAL SKILLS EDUCATION

SUBCOMMITTEE MEMBERSHIPS

1. Community Expectations
   - Jack Reed*
   - Terri Potter
   - Mary Kauper

2. Occupational Skills Opportunities
   - Audrey Lehman*
   - Edward Killeen
   - Susan Rood
   - Merle Strong

3. Student Support Programs
   - Cindy Huber*
   - Charles Stovall
   - Patrick Mooney

4. Linkages to Private Training
   - John Bolles*
   - Barbara Hagens
   - Reinhold Meihsner
   - Harold Polzer

5. Employment and Population Trends
   - Marvin De Young*
   - August Cibarich
   - David Newby
   - Daryush Nowrasteh

6. Faculty/School Support Program
   - Gordon McChesney*
   - James Worthington

7. Secondary/Post Secondary Articulation
   - Donald McCloskey*
   - Jim Olstad
   - Dean Wessels

8. Technological Change
   - Stuart Sears*
   - Russel Weisensel
   - John Krauss
   - Nancy Everson

*indicates chairperson

04/19/83
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TOPICS TO BE ADDRESSED BY MADISON TASK FORCE
ON PLANNING OCCUPATIONAL SKILLS EDUCATION

The following topics are candidates for further exploration by subcommittees of the Task Force. All should be viewed, of course, from the standpoint of their impact on the occupational preparation of high school youth.

TOPIC 1 Throughout the nation in recent years, secondary education has become increasingly questioned as to the adequacy of its preparation of high school students for the world of work. Critics point to falling SAT scores and concerns reflected in Gallup polls. Other studies question the adequacy of students' knowledge in the basic academic disciplines as well as their work habits and attitudes toward authority. Through discussion with community employers and post-secondary educators, it has become apparent that a number of high school graduates are inadequately prepared to deal with full time work or post-secondary education. Therefore, the Task Force should explore the community's expectations for high school graduates.

Question: What are the community's expectations of high school graduates? (in terms of competencies as individuals and as potential workers)

TOPIC 2 In recent years, technological improvements and other factors such as jobs lost to foreign competition, aging plants, etc., have modified the work place. The impact of these economic factors as well as the advent of lasers, robots, computers and other innovations have significantly changed the work patterns in business and industry. With these changes, the skills required of workers have also evolved. New positions requiring specific job training and skills in new technological areas have become available faster than the supply of skilled workers can be trained. Therefore, the Task Force should examine the occupational education programs secondary schools provide students within the context of students' interests and abilities as well as the community's need for skilled workers.

Question: What occupational skills education opportunities should be available to persons prior to high school graduation?

TOPIC 3 A diversity of student abilities, interests, motivational frameworks and learning needs confront today's educators. Several diverse groups which require specialized programming can be identified such as marginal, gifted, handicapped, and potential early leavers. For occupational education programs to be effective, these unique sets of learning needs among students must be recognized in planning occupational education programs. Therefore, the Task Force must consider the types of support programs which are necessary to meet the learning needs of diverse student groups.

Question: For occupational skills education, what support programs should exist for marginal, gifted, handicapped, and potential early school leavers?

TOPIC 4 In the Madison area, a variety of training programs and facilities are maintained by area businesses, industry, government, labor and other private organizations. In some instances these training programs and facilities may be shared with secondary schools in the Madison area. Therefore, the Task Force should review occupational training programs offered in all sectors of the Madison area in an attempt to identify areas and strategies for sharing training resources.

Question: What training opportunities exist in business, industry, government, or from labor or private organizations that could be utilized by high school age youth?

How can school districts work with business, industry, government, labor, and/or private organizations to provide more students with a supervised work experience program?

TOPIC 5 During the 1960s and 1970s, Wisconsin's economic and employment patterns were characterized by steady and continual growth even during times of national recessions. In fact, The Wall Street Journal referred to Wisconsin as the "Shining Star of the Snowbelt." However, the state's economic and employment patterns for the 1980s have significantly dimmed. The state has suffered more severely than the rest of the nation during the current recession. Its manufacturing plants have shown increasing signs of aging and estimates indicate approximately 11,000 jobs have been forever lost. Major industries which have not shown signs of aging are not projected to increase employment as rapidly as the rest of the nation's manufacturing sector. In addition. technological innovations in the work place paced by the advent of computers, robots, and lasers have significantly changed the employment patterns in the state. In order to plan occupational education programs for the coming decades, the Task Force should review employment opportunities and population projections for the 1980s and 1990s.

Question: What trends can be projected regarding employment opportunities and the likely population of students and workers over the next 15 to 20 years?

TOPIC 6 As the needs of the work place for skilled workers change as a result of economic and technological evolution, the educational programs within secondary schools must also evolve. These changes impact all areas of the high school curriculum and may affect the content of all courses. As the curriculum changes, schools and school faculties must also change. Therefore, the Task Force should explore the types of programs needed to keep schools and school staffs current with occupational changes.

Question: What types of programs are needed to keep schools and school faculties current if occupational skills development opportunities are to be optimized for high school youth?

TOPIC 7 Over the years in Wisconsin, various institutions have provided occupational skills education for the state's residents. Funded by abundant dollars from the federal government, institutions such as the secondary schools; vocational, technical, and adult institutes; as well as private post-secondary technical schools have independently developed a variety of occupational skills educational programs which, in many instances, duplicate training programs and efforts. As a result, students moving from one level to another or from one institution to another may repeat prior learning. Therefore, the Task Force should explore ways to effectively articulate between the various institutions and to provide students with coordinated, sequential learning programs in the various occupational fields.

Question: What arrangements can be made to effectively articulate between high school curriculums and curriculums of post-secondary institutions and to develop coordinated, sequential learning programs for the various occupational fields?

What arrangements can be made between secondary school districts to effectively articulate vocational education curriculums and to develop joint vocational education programs which share students, teachers, facilities, and other vocational education resources?

TOPIC 8 Changes in the work place are occurring so rapidly that it is difficult for school programs to keep pace. By the time new equipment can be ordered and installed, technological developments have frequently antiquated the new equipment. As a result of cuts in federal funding and constraints on the local tax base, schools are finding the costs of funding occupational educational programs increasingly difficult to bear. Therefore, the Task Force should review present occupational skills curriculums in relation to the changes in the work place and develop strategies for making changes when and where appropriate.

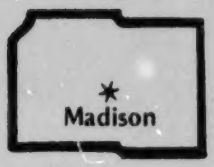
Question: What significant technological changes are expected over the next 15 to 20 years and what impact will they have on the curriculums of occupational skills education?

RS:aw
03/06/84

ATTACHMENT C - EMPLOYERS SURVEY

1. Summary of Survey Results

GREATER MADISON TASK FORCE FOR PLANNING OCCUPATIONAL SKILLS EDUCATION



Dear Chief Executive:

Recent studies have examined the perceptions of business and industry concerning the preparation of secondary students for the world of work. In Wisconsin, the Business and Education Survey sponsored by the Parker Foundation, the Wisconsin Association of Manufacturers and Commerce, the Wisconsin Agri-Business Council, and the Wisconsin Department of Public Instruction has identified the need for secondary students to possess certain skills, work habits, and some relevant work experience prior to entering the work force.

Locally, the Greater Madison Task Force for Planning Occupational Skills Education has been studying ways in which school districts within the Madison metropolitan area can improve occupational skills training programs so as to benefit local business, industry, labor, government, and non profit groups as well as students. To do this more effectively, the Task Force needs your help.

Specifically, the Task Force wants to know your group's expectations concerning basic skills, work habits, work experience and job skills training high school students should receive prior to entering the area's work force. The Task Force would also like to know what training programs and facilities exist in the community that could be utilized by high school students.

Even if you have not and do not plan to hire recent high school graduates, we would appreciate your completing the questionnaire. The identification of skills needed by your future employees will be helpful to our schools and will also be a valuable community service.

If you have any additional comments or questions concerning this questionnaire or the work of the Occupational Skills Task Force, please contact Bob Sladky, Task Force Coordinator, at 266-6012. Please return by December 16, 1983. Thank you for your help.

Donald A. Hafeman

Donald Hafeman, Superintendent
Madison Metropolitan School District

Jerome Coaty, Superintendent
Monona Grove School District

Gene Thieleke

Gene Thieleke, Superintendent
Middleton-Cross Plains School District

Phillip Helgesen

Phillip Helgesen, Superintendent
Oregon School District

James R. Gland

James Gland, Superintendent
Sun Prairie School District

Augusto Muñoz

Augusto Muñoz, Superintendent
DeForest Area School District

Patrick Kennedy

Patrick Kennedy, Superintendent
McFarland School District

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Allen Rosenthal, Superintendent
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1. What is the major activity of your organization? *(check one)*

☐ a. Production Agriculture	☐ g. Communication	☐ m. Service
☐ b. Agribusiness	☐ h. Wholesale Trade	☐ n. Recreation
☐ c. Mining	☐ i. Retail Trade	☐ o. Government
☐ d. Construction	☐ j. Finance	☐ p. Education
☐ e. Manufacturing	☐ k. Insurance	☐ q. Labor
☐ f. Transportation	☐ l. Real Estate	☐ r. Other (Specify: _____)

2. What was the average number of employees in your organization during the last twelve months?

_____ a. Full time, i.e., over 28 hours per week

_____ b. Part time, i.e., 17-28 hours per week

_____ c. Casual, i.e., under 17 hours per week

3. How many recent high school graduates did your organization employ during the past year?

_____ a. Full time, i.e., over 28 hours per week

_____ b. Part time, i.e., 17-28 hours per week

_____ c. Casual, i.e., under 17 hours per week

4. What entry level positions does your organization offer to high school graduates?

a. _____ d. _____

b. _____ e. _____

c. _____ f. _____

5. **OCCUPATIONAL SKILLS.** When hiring recent high school graduates for the entry level positions identified in item #4 above, what are your organization's expectations in terms of **specific occupational skills** for each position?

Please list the position and the **specific occupational skills** high school graduates need for employment for these positions in your organization. Please limit your responses to **specific occupational skills.** General education skills and general employability skills are surveyed in items #10 and #11 respectively.

Under the column "NEED" place a check (✓) by those skills which have been particularly weak in high school graduates recently hired; place a plus sign (+) by those skills which have been particularly strong in high school graduates recently hired.

Position Identified In:	Special Occupational Skills	Need
4a. _____	_____	_____
	_____	
4b. _____	_____	_____
	_____	
4c. _____	_____	_____
	_____	
4d. _____	_____	_____
	_____	
4e. _____	_____	_____
	_____	
4f. _____	_____	_____
	_____	

6. What entry level positions does your organization offer to high school dropouts?

a. _____ d. _____

b. _____ e. _____

c. _____ f. _____

7. What is the typical beginning salary offered by your organization to recent high school graduates? _____

8. Does a high school graduate with vocational training typically start at a higher salary than one who has had no vocational training?

_____ Yes; _____ No

9. What fringe benefits does your organization offer to new employees who are recent high school graduates?

_____

_____

_____

10. **GENERAL EDUCATION.** What are your organization's expectations of high school graduates in each of the following general education skill areas? Under the column "RANK" mark "1" if the expectation is high, "2" if average, and "3" if not critical. Under the column "NEED" check (✓) those areas where you feel recent high school graduates have been particularly weak; place a plus (+) by those areas where you feel recent high school graduates have been particularly strong.

RANK	AREA	NEED	RANK	AREA	NEED
_____	Reading	_____	_____	Speaking	_____
_____	Writing	_____	_____	Listening	_____
_____	Computation	_____	_____	Problem Solving	_____
_____	Attendance	_____	_____	Community/Government Understandings	_____
_____	Hygiene/Dress	_____	_____	Economic/Monetary Understandings	_____
_____	Human Relations	_____			

11. **EMPLOYABILITY SKILLS.** What are your organization's expectations of high school graduates in each of the following employability skill areas? Under the column "RANK" mark "1" if the expectation is high, "2" if average, and "3" if not critical. Under the column "NEED" check (✓) those areas where you feel recent high school graduates have been particularly weak; place a plus (+) by those areas where you feel recent high school graduates have been particularly strong.

RANK	AREA	NEED
_____	Ability to Prepare A Resume	_____
_____	Ability to Complete an Application Form	_____
_____	Ability to Interview	_____
_____	Ability to React to Consumer/Client Requirements	_____
_____	Ability to Work with Others	_____
_____	Ability to Change	_____
_____	Willingness to Work	_____
_____	Willingness to Follow Directions	_____
_____	Prior Work Experience	_____

12. a. Is your organization currently involved in partnerships with public schools to help provide on the job training or job shadowing (follow/observe) programs for high school students?

_____ Yes; _____ No; _____ Please send more information

b. Is your organization willing to develop partnerships with public schools to help provide on the job training or job shadowing (follow/observe) programs for high school students?

_____ Yes; _____ No; _____ Please send more information

c. Would your organization be willing to share your training facilities with Madison area school districts?

_____ Yes; _____ No; _____ Please send more information _____ No facilities

d. Would your organization be willing to work with area high schools to hire and train new employees for entry level positions?

_____ Yes; _____ No; _____ Please send more information

e. Would your organization be interested in using training facilities located in local high schools for training your employees?

_____ Yes; _____ No; _____ Please send more information

If you answered "yes" to any item under #12, or wish additional information, who should local district people contact?

Name _____ Title _____

Address _____

City _____ Zip _____ Telephone _____

13. Does your organization provide formal, on the job training programs for new employees?

_____ Yes; _____ No

If yes, explain briefly: _____

_____

14. As a result of developing technologies which are changing the way work is done, how will job and hiring requirements in your organization be different in the future?

_____

_____

_____

_____

SUMMARY - EMPLOYERS SURVEY

Prepared by:

The Greater Madison Task Force

for Planning Occupational Skills Education

The Employers Survey was mailed to over 2,200 employers in the municipal governmental units served by the school districts participating on the Task Force. Various sampling procedures were used to identify these employers. Random selection was used to identify 10 percent of the employers employing between zero and three employees and to identify 20 percent of the employers employing between four and nine employees. All employers employing ten or more employees were mailed a survey form. Over 695 responses were received for a response rate of 30.5 percent.

Repondents came from various industries. For purposes of analysis, they were grouped into 14 general classes. These classes correspond to the ten two-digit General Standard Industrial Classes (SIC) used by the U. S. Bureau of Labor Statistics with two exceptions, namely, Retail Trade and Services. Because of the number of respondents, both of these two-digit classes were divided into three subgroups. Retail Trade was divided into: 1) General Merchandise, Food, Apparel and Furniture, 2) Eating and Drinking Places, and 3) Other Retail Stores . Services was divided into: Business and Legal Services, 2) Health Services, and 3) Other Services.

Respondents to the Business Survey

General SIC Class	Number of Respondents	Percent of Total Respondents	Percent that Hire HS Grad
Agriculture	17	2.44	64.7
Mining and Construction	41	5.88	63.4
Durable Goods Manufacturing	32	4.59	78.1
Non-Durable Goods Manufact.	38	5.45	68.4
Transportation & Utilities	38	5.45	60.5
Wholesale Trade	62	8.90	64.5
General Merchandise, Food, Apparel & Furniture	51	7.32	74.5
Eating & Drinking Places	28	4.02	53.6
Other Retail Stores	53	7.60	67.9
Finance, Insurance, and Real Estate	62	8.90	61.3
Business & Legal Services	62	8.90	69.4
Health Services	41	5.88	63.4
Other Services	124	17.79	63.7
Government	46	6.60	67.4
Unidentified	2		100.0
Totals	697	99.72	65.8

Results

1. 65.8 percent of employers indicated that they would hire a high school graduate.

2. 28.5 percent of employers indicated that they would hire a high school dropout.

3. Responding employers identified 955 job titles which they would offer to a high school graduate. Notable areas included:

   a. Approximately 32 percent of these positions require office skills. Job titles included: account clerk, bookkeeper, clerical, data entry, file clerk, mail clerk, secretary, teller, word processor, etc.

   b. Approximately 20 percent of these positions required various skills. Job titles included: delivery, driver, truck driver, housekeeper, janitor, laborer, maintenance worker, warehouse worker, etc.

   c. Approximately 8.5 percent of these positions were in sales. Job titles included: cashier, driveway sales, route sales, sales clerk, etc.

   d. Approximately 6 percent of these positions were in restaurant/food service positions. Job titles included: waitperson, salad cook, kitchen help, food service worker, dishwasher, cook, busperson, etc.

4. Employers were asked to indicate the relative importance of general education and employability skills for entry level positions. The results are as follows:

General Education Skill Area	Percent of Employers Indicating High Expectations	Employability Skills Area	Percent of Employers Indicating High Expectations
Attendance	92.3	Willingness to Work	93.8
Listening	73.0	Willingness to Follow Directions	89.5
Human Relations	66.9	Work with Others	86.4
Reading	59.9	React to Consumer/Client Requirements	66.5
Computation	52.4	Ability to Change	58.8
Hygiene/Dress	51.3	Ability to Complete Application Forms	52.4
Writing	49.2	Ability to Interview	42.7
Speaking	42.5	Abilty to Prepare Resumes	15.7
Problem Solving	41.8	Prior Work Experience	15.4
Economic/Monetary Understandings	18.5		
Community/Government Understandings	7.4		

5. Employers expressed a willingness to develop partnerships with area schools to provide students with work experiences, shared training experiences, etc.

   a. 36 percent indicated a willingness to work with or to explore ways to work with area high schools to hire and train new employees in entry level positions.

   b. 20 percent indicated an interest in using or exploring ways for using training facilities located in high schools for training their employees.

c. 40 percent indicated a willingnesss to develop or to explore ways to develop partnerships with public schools to help provide on-the-job training or job shadowing experiences for high school students.

d. 25 percent indicated they are currently involved in partnerships with public schools to help provide on-the-job training or job shadowing experiences for high school students.

e. 15 percent indicated they are willing to share their training facilities with Madison area high schools.

6. Of the 595 employers who indicated that they would hire a high school graduate, 244 or 41 percent stated a high school graduate with vocational training would typically start at a high salary than one who has had no vocational training.

7. Employers were asked to identify skills required for entry positions they would offer to high school graduates. Skills were identified for 683 job titles. When each skill is counted separately, there were over 1,600 separate skills listed. 827 or 51.6 percent of the skills listed most frequently are listed below:

Skill	Frequency	Skill	Frequency
Typing	209	Bookkeeping	30
Math	90	Grammar	27
Communication	60	Shorthand	24
Filing	60	Writing	19
Spelling	49	Handle Money	18
Reading	40	Common Sense	16
Computer/CRT/WP	39	Office Machines	16
Telephone	38	Prior Experience	12
Calculator	36	Business Machines	8
Mechanical Ability	32	Accounting	7

8. Employers were asked to indicated skills which they thought students would need in the future. In a duplicated count, 266 employers responding to this question identified over 505 different "skills" today's students would need in the future. When each "skill" is counted in an unduplicated count, 92 "skills" were identified. The following five general "skills" accounted for 323 of the 505 different "skills" in the duplicated count, i.e. 64 percent. These five different "skills" include:

1) Coumputer Usage -- 173 or 34.3 percent

2) More Training -- 81 or 16.0 percent

3) Ability to Change/Adaptable -- 28 or 5.5 percent

4) People Skills -- 24 or 4.8 percent

5) Communication Skills -- 17 or 3.4 percent

ATTACHMENT C - EMPLOYERS SURVEY

2. Skills Today's Students Will Need in the Future

(Alphabetical Listing)

ANALYSIS OF DATA - EMPLOYER SURVEY

ALPHABETICAL LISTING:

SKILLS TODAY'S STUDENTS WILL NEED IN THE FUTURE

Prepared by:

The Greater Madison Task Force

for Planning Occupational Skills Education

The survey of Employers conducted by the Greater Madison Task Force for Planning Occupational Skills Education sought information about skills today's high school students would need in the future. An open ended survey question asked employers to identify the skills students would need in the future.

Of the 595 respondents who provided usable information, 266 indicated a variety of skills today's students would need in the future. The other 329 respondents did not respond or indicated the future would not require any new skills.

Some employers only indicated one additional skill which today's students would need in the future. Others, however, listed several additional skills. In analyzing the responses, each future skill was identified separately. If an employer listed four new skills, each new skill was listed separately; but the employer is listed four times.

In column, the "id" number of the respondent is listed. In column two, the General Standard Industrial Class (SIC) Class is listed. In column three, the new skill is identified. Table 1 presents the General SIC Classes.

Table 1

General SIC Classes

1 = Agriculture
2 = Mining and Construction
3 = Durable Goods Manufacturing
4 = Non-Durable Goods Manufacturing
5 = Transportation and Utilities
6 = Wholesale Trade
7 = General Merchandise, Food Apparel and Furniture
8 = Eating and Drinking Places
9 = Other Retail Stores
10 = Finance, Insurance, Real Estate
11 = Business and Legal Services
12 = Health Services
13 = Other Services
14 = Government

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
100	13	ABILITY TO CHANGE
107	13	ABILITY TO CHANGE
235	9	ABILITY TO CHANGE
242	2	ABILITY TO CHANGE
417	6	ABILITY TO CHANGE
419	5	ABILITY TO CHANGE
446	7	ABILITY TO CHANGE
447	9	ABILITY TO CHANGE
460	13	ABILITY TO CHANGE
596	5	ABILITY TO CHANGE
608	3	ABILITY TO CHANGE
645	5	ABILITY TO CHANGE
206	4	ABILITY TO CHANGE
605	4	ABILITY TO CHANGE
657	10	ABILITY TO CHANGE
237	13	ABILITY TO CHANGE
298	3	ABILITY TO CHANGE
97	11	ABILITY TO CHANGE
212	14	ABILITY TO CHANGE
411	3	ABILITY TO CHANGE
414	10	ACCOUNTING
537	13	ACCURATE RECORD KEEP
242	2	ADAPTABLE, ABLE TO LEARN NEW SKILLS
645	5	ADAPTABLE, ABLE TO LEARN NEW SKILLS
662	5	ADAPTABLE, ABLE TO LEARN NEW SKILLS
97	11	ADAPTABLE, ABLE TO LEARN NEW SKILLS
657	10	ADAPTABLE, ABLE TO LEARN NEW SKILLS
661	11	ADAPTABLE, ABLE TO LEARN NEW SKILLS
107	13	ADAPTABLE, ABLE TO LEARN NEW SKILLS
518	6	ADAPTABLE, ABLE TO LEARN NEW SKILLS
447	9	ALERT
446	7	ALERT
605	4	AMBITIOUS
533	7	APPEARANCE
148	6	ATTENDANCE
417	6	ATTITUDE
455	13	AUTOMATIC EQUIPMENT
522	3	BLUE PRINT KNOWLEDGE
420	2	BROAD CONSTRUCTION KNOWLEDGE
569	11	CLIENT INFORMATION KNOWLEDGE
23	1	COMMUNICATION SKILLS
533	7	COMMUNICATION SKILLS
14	8	COMMUNICATION SKILLS
113	14	COMMUNICATION SKILLS
241	6	COMMUNICATION SKILLS
243	13	COMMUNICATION SKILLS
803	11	COMMUNICATION SKILLS
128	13	COMMUNICATION SKILLS
265	3	COMMUNICATION SKILLS
483	13	COMMUNICATION SKILLS
52	11	COMMUNICATION SKILLS
148	6	COMMUNICATION SKILLS

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
229	13	COMMUNICATION SKILLS
586	10	COMMUNICATION SKILLS
647	2	COMMUNICATION SKILLS
601	9	COMMUNICATION SKILLS
49	13	COMMUNICATION SKILLS
265	3	COMPREHEND
157	13	COMPREHEND
126	13	COMPREHEND
196	14	COMPREHEND
426	5	COMPREHEND
178	10	COMPREHEND
2	9	COMPUTER LITERACY AND SKILLS
4	10	COMPUTER LITERACY AND SKILLS
16	13	COMPUTER LITERACY AND SKILLS
17	10	COMPUTER LITERACY AND SKILLS
18	10	COMPUTER LITERACY AND SKILLS
34	4	COMPUTER LITERACY AND SKILLS
39	6	COMPUTER LITERACY AND SKILLS
48	3	COMPUTER LITERACY AND SKILLS
52	11	COMPUTER LITERACY AND SKILLS
57	11	COMPUTER LITERACY AND SKILLS
60	11	COMPUTER LITERACY AND SKILLS
63	10	COMPUTER LITERACY AND SKILLS
72	6	COMPUTER LITERACY AND SKILLS
74	13	COMPUTER LITERACY AND SKILLS
82	4	COMPUTER LITERACY AND SKILLS
88	11	COMPUTER LITERACY AND SKILLS
92	11	COMPUTER LITERACY AND SKILLS
97	11	COMPUTER LITERACY AND SKILLS
111	14	COMPUTER LITERACY AND SKILLS
112	14	COMPUTER LITERACY AND SKILLS
120	7	COMPUTER LITERACY AND SKILLS
128	13	COMPUTER LITERACY AND SKILLS
152	9	COMPUTER LITERACY AND SKILLS
154	13	COMPUTER LITERACY AND SKILLS
159	13	COMPUTER LITERACY AND SKILLS
161	10	COMPUTER LITERACY AND SKILLS
169	13	COMPUTER LITERACY AND SKILLS
170	5	COMPUTER LITERACY AND SKILLS
172	5	COMPUTER LITERACY AND SKILLS
180	12	COMPUTER LITERACY AND SKILLS
183	11	COMPUTER LITERACY AND SKILLS
186	12	COMPUTER LITERACY AND SKILLS
189	10	COMPUTER LITERACY AND SKILLS
190	11	COMPUTER LITERACY AND SKILLS
192	14	COMPUTER LITERACY AND SKILLS
194	6	COMPUTER LITERACY AND SKILLS
196	14	COMPUTER LITERACY AND SKILLS
198	9	COMPUTER LITERACY AND SKILLS
202	2	COMPUTER LITERACY AND SKILLS
210	14	COMPUTER LITERACY AND SKILLS
212	14	COMPUTER LITERACY AND SKILLS

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
228	13	COMPUTER LITERACY AND SKILLS
230	11	COMPUTER LITERACY AND SKILLS
233	12	COMPUTER LITERACY AND SKILLS
239	3	COMPUTER LITERACY AND SKILLS
241	6	COMPUTER LITERACY AND SKILLS
246	6	COMPUTER LITERACY AND SKILLS
253	9	COMPUTER LITERACY AND SKILLS
271	10	COMPUTER LITERACY AND SKILLS
276	12	COMPUTER LITERACY AND SKILLS
279	4	COMPUTER LITERACY AND SKILLS
282	11	COMPUTER LITERACY AND SKILLS
289	9	COMPUTER LITERACY AND SKILLS
290	4	COMPUTER LITERACY AND SKILLS
294	11	COMPUTER LITERACY AND SKILLS
295	4	COMPUTER LITERACY AND SKILLS
297	12	COMPUTER LITERACY AND SKILLS
301	1	COMPUTER LITERACY AND SKILLS
303	14	COMPUTER LITERACY AND SKILLS
306	13	COMPUTER LITERACY AND SKILLS
406	13	COMPUTER LITERACY AND SKILLS
412	13	COMPUTER LITERACY AND SKILLS
416	10	COMPUTER LITERACY AND SKILLS
426	5	COMPUTER LITERACY AND SKILLS
434	9	COMPUTER LITERACY AND SKILLS
435	12	COMPUTER LITERACY AND SKILLS
437	10	COMPUTER LITERACY AND SKILLS
440	6	COMPUTER LITERACY AND SKILLS
449	13	COMPUTER LITERACY AND SKILLS
458	11	COMPUTER LITERACY AND SKILLS
464	5	COMPUTER LITERACY AND SKILLS
467	12	COMPUTER LITERACY AND SKILLS
477	13	COMPUTER LITERACY AND SKILLS
486	13	COMPUTER LITERACY AND SKILLS
496	11	COMPUTER LITERACY AND SKILLS
497	4	COMPUTER LITERACY AND SKILLS
504	13	COMPUTER LITERACY AND SKILLS
512	14	COMPUTER LITERACY AND SKILLS
520	9	COMPUTER LITERACY AND SKILLS
524	10	COMPUTER LITERACY AND SKILLS
541	10	COMPUTER LITERACY AND SKILLS
553	13	COMPUTER LITERACY AND SKILLS
554	14	COMPUTER LITERACY AND SKILLS
557	11	COMPUTER LITERACY AND SKILLS
563	10	COMPUTER LITERACY AND SKILLS
567	10	COMPUTER LITERACY AND SKILLS
579	11	COMPUTER LITERACY AND SKILLS
584	10	COMPUTER LITERACY AND SKILLS
586	10	COMPUTER LITERACY AND SKILLS
592	14	COMPUTER LITERACY AND SKILLS
601	9	COMPUTER LITERACY AND SKILLS
623	10	COMPUTER LITERACY AND SKILLS
632	13	COMPUTER LITERACY AND SKILLS

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
633	9	COMPUTER LITERACY AND SKILLS
634	10	COMPUTER LITERACY AND SKILLS
636	10	COMPUTER LITERACY AND SKILLS
651	14	COMPUTER LITERACY AND SKILLS
656	10	COMPUTER LITERACY AND SKILLS
668	13	COMPUTER LITERACY AND SKILLS
678	11	COMPUTER LITERACY AND SKILLS
802	12	COMPUTER LITERACY AND SKILLS
50	3	COMPUTER LITERACY AND SKILLS
70	1	COMPUTER LITERACY AND SKILLS
163	13	COMPUTER LITERACY AND SKILLS
173	11	COMPUTER LITERACY AND SKILLS
201	3	COMPUTER LITERACY AND SKILLS
203	14	COMPUTER LITERACY AND SKILLS
215	14	COMPUTER LITERACY AND SKILLS
243	13	COMPUTER LITERACY AND SKILLS
413	12	COMPUTER LITERACY AND SKILLS
424	4	COMPUTER LITERACY AND SKILLS
569	11	COMPUTER LITERACY AND SKILLS
578	10	COMPUTER LITERACY AND SKILLS
606	5	COMPUTER LITERACY AND SKILLS
803	11	COMPUTER LITERACY AND SKILLS
73	5	COMPUTER LITERACY AND SKILLS
148	6	COMPUTER LITERACY AND SKILLS
178	10	COMPUTER LITERACY AND SKILLS
206	4	COMPUTER LITERACY AND SKILLS
600	5	COMPUTER LITERACY AND SKILLS
49	13	COMPUTER LITERACY AND SKILLS
142	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
203	14	COMPUTER SKILL - DATA PROCESSING/ENTRY
215	14	COMPUTER SKILL - DATA PROCESSING/ENTRY
390	12	COMPUTER SKILL - DATA PROCESSING/ENTRY
396	6	COMPUTER SKILL - DATA PROCESSING/ENTRY
448	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
569	11	COMPUTER SKILL - DATA PROCESSING/ENTRY
667	14	COMPUTER SKILL - DATA PROCESSING/ENTRY
104	10	COMPUTER SKILL - DATA PROCESSING/ENTRY
115	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
284	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
414	10	COMPUTER SKILL - DATA PROCESSING/ENTRY
460	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
567	10	COMPUTER SKILL - DATA PROCESSING/ENTRY
92	11	COMPUTER SKILL - DATA PROCESSING/ENTRY
128	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
91	11	COMPUTER SKILL - WORD PROCESSING
104	10	COMPUTER SKILL - WORD PROCESSING
110	4	COMPUTER SKILL - WORD PROCESSING
163	13	COMPUTER SKILL - WORD PROCESSING
201	3	COMPUTER SKILL - WORD PROCESSING
208	3	COMPUTER SKILL - WORD PROCESSING
237	13	COMPUTER SKILL - WORD PROCESSING
284	13	COMPUTER SKILL - WORD PROCESSING

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
487	4	COMPUTER SKILL - WORD PROCESSING
606	5	COMPUTER SKILL - WORD PROCESSING
619	14	COMPUTER SKILL - WORD PROCESSING
629	11	COMPUTER SKILL - WORD PROCESSING
803	11	COMPUTER SKILL - WORD PROCESSING
11	6	COMPUTER SKILL - WORD PROCESSING
18	10	COMPUTER SKILL - WORD PROCESSING
124	11	COMPUTER SKILL - WORD PROCESSING
128	13	COMPUTER SKILL - WORD PROCESSING
161	10	COMPUTER SKILL - WORD PROCESSING
164	11	COMPUTER SKILL - WORD PROCESSING
187	10	COMPUTER SKILL - WORD PROCESSING
196	14	COMPUTER SKILL - WORD PROCESSING
197	10	COMPUTER SKILL - WORD PROCESSING
212	14	COMPUTER SKILL - WORD PROCESSING
303	14	COMPUTER SKILL - WORD PROCESSING
412	13	COMPUTER SKILL - WORD PROCESSING
419	5	COMPUTER SKILL - WORD PROCESSING
448	13	COMPUTER SKILL - WORD PROCESSING
496	11	COMPUTER SKILL - WORD PROCESSING
512	14	COMPUTER SKILL - WORD PROCESSING
553	13	COMPUTER SKILL - WORD PROCESSING
557	11	COMPUTER SKILL - WORD PROCESSING
623	10	COMPUTER SKILL - WORD PROCESSING
656	10	COMPUTER SKILL - WORD PROCESSING
668	13	COMPUTER SKILL - WORD PROCESSING
215	14	COMPUTER SKILL - WORD PROCESSING
567	10	COMPUTER SKILL - WORD PROCESSING
411	3	COMPUTER/ELECTRICAL ENGINEERING
2	9	CRT OPERATING SKILLS
4	10	CRT OPERATING SKILLS
187	10	CRT OPERATING SKILLS
197	10	CRT OPERATING SKILLS
607	13	CRT OPERATING SKILLS
640	7	CRT OPERATING SKILLS
92	11	CRT OPERATING SKILLS
97	11	CRT OPERATING SKILLS
111	14	CRT OPERATING SKILLS
172	5	CRT OPERATING SKILLS
276	12	CRT OPERATING SKILLS
635	10	CRT OPERATING SKILLS
11	6	CRT OPERATING SKILLS
157	13	DEPENDABLE
270	12	DETAILS
203	14	DICTATION
629	11	DICTATION EQUIPMENT
230	11	EFFICIENCY
577	4	ELECTRICAL PROBLEM SOLVING
522	3	ELECTRICITY
82	4	ELECTRONIC APT
16	13	ELECTRONIC EQUIPMENT
615	6	ELECTRONIC KNOWLEDGE

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
640	7	ELECTRONIC REGISTERS
73	5	ELECTRONICS
434	9	ELECTRONICS
206	4	ELECTRONICS
600	5	ELECTRONICS
480	13	ENGINE KNOWLEDGE
74	13	ENGINE REPAIR
640	7	EQUIPMENT KNOWLEDGE
100	13	EQUIPMENT KNOWLEDGE
581	13	FOLLOW DIRECTIONS
640	7	FOLLOW DIRECTIONS
270	12	FOLLOW INSTRUCTIONS
411	3	GEOLOGY
124	11	GRAMMAR
656	10	HIGH TECHNOLOGY
498	7	HIGHLY LABOR INTENSIVE
74	13	HVAC
627	10	INSURANCE KNOWLEDGE
125	7	KNOWLEDGE ECONOMICS
294	11	KNOWLEDGE ECONOMICS
533	7	KNOWLEDGE OF ATHLETICS
54	13	KNOWLEDGE OF BASICS
479	2	KNOWLEDGE OF BUSINESS THEORY
273	11	LAY-OUT
480	13	MACHINE OPER
517	14	MAINTENANCE
460	13	MANAGEMENT
173	11	MANAGEMENT
42	13	MATH
30	3	MATH
537	13	MATH
647	2	MATH
411	3	MATH
522	3	MATH
424	4	MATH
586	10	MATH
601	9	MATH
628	6	MATH
393	5	MECHANICAL ABILITY
70	1	MECHANICAL SKILLS
21	6	MICRO PROCESS EQUIPMENT
579	11	MICRO PROCESS EQUIPMENT
56	13	MORAL CHARACTER
473	1	MORE AUTOMATED EQUIPMENT
84	3	MORE AUTOMATION
90	11	MORE AUTOMATION
423	10	MORE AUTOMATION
547	14	MORE AUTOMATION
577	4	MORE AUTOMATION
580	5	MORE AUTOMATION
175	13	MORE COMM SKILLS
530	2	MORE COMMON SENSE

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
439	2	MORE ELECTRICAL AND CONTROLS KNOWLEDGE
299	3	MORE ELECTRONICS
208	3	MORE HIGH TECHNOLOGY EQUIPMENT
574	8	MORE KNOWLEDGE
137	7	MORE SALES ABILITY
298	3	MORE SPECIALIZED TRAINING
144	11	MORE SPECIALIZED TRAINING WILL BE REQUIRED
193	10	MORE SPECIALIZED TRAINING WILL BE REQUIRED
414	10	MORE SPECIALIZED TRAINING WILL BE REQUIRED
517	14	MORE SPECIALIZED TRAINING WILL BE REQUIRED
564	6	MORE SPECIALIZED TRAINING WILL BE REQUIRED
624	1	MORE SPECIALIZED TRAINING WILL BE REQUIRED
55	6	MORE SPECIALIZED TRAINING WILL BE REQUIRED
149	5	MORE SPECIALIZED TRAINING WILL BE REQUIRED
667	14	MORE SPECIALIZED TRAINING WILL BE REQUIRED
558	13	MORE SPECIALIZED TRAINING WILL BE REQUIRED
23	1	MORE TRAINING IN AGRONOMY
246	6	MORE TRAINING IN SALES
11	6	MORE TRAINING REQUIRED IN FUTURE
38	10	MORE TRAINING REQUIRED IN FUTURE
47	3	MORE TRAINING REQUIRED IN FUTURE
49	13	MORE TRAINING REQUIRED IN FUTURE
73	5	MORE TRAINING REQUIRED IN FUTURE
95	6	MORE TRAINING REQUIRED IN FUTURE
115	13	MORE TRAINING REQUIRED IN FUTURE
137	7	MORE TRAINING REQUIRED IN FUTURE
182	11	MORE TRAINING REQUIRED IN FUTURE
229	13	MORE TRAINING REQUIRED IN FUTURE
251	13	MORE TRAINING REQUIRED IN FUTURE
253	9	MORE TRAINING REQUIRED IN FUTURE
309	7	MORE TRAINING REQUIRED IN FUTURE
424	4	MORE TRAINING REQUIRED IN FUTURE
431	9	MORE TRAINING REQUIRED IN FUTURE
432	3	MORE TRAINING REQUIRED IN FUTURE
455	13	MORE TRAINING REQUIRED IN FUTURE
474	11	MORE TRAINING REQUIRED IN FUTURE
490	14	MORE TRAINING REQUIRED IN FUTURE
522	3	MORE TRAINING REQUIRED IN FUTURE
600	5	MORE TRAINING REQUIRED IN FUTURE
627	10	MORE TRAINING REQUIRED IN FUTURE
638	13	MORE TRAINING REQUIRED IN FUTURE
64	3	MORE TRAINING REQUIRED IN FUTURE
82	4	MORE TRAINING REQUIRED IN FUTURE
90	11	MORE TRAINING REQUIRED IN FUTURE
280	12	MORE TRAINING REQUIRED IN FUTURE
458	11	MORE TRAINING REQUIRED IN FUTURE
580	5	MORE TRAINING REQUIRED IN FUTURE
648	9	MORE TRAINING REQUIRED IN FUTURE
172	5	MORE TRAINING REQUIRED IN FUTURE
629	11	MORE TRAINING REQUIRED IN FUTURE
21	6	MORE TRAINING REQUIRED IN FUTURE
108	5	MORE TECHNICAL TRAINING REQUIRED IN FUTURE

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
260	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
273	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
274	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
469	7	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
471	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
518	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
611	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
620	13	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
657	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
63	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
219	13	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
552	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
590	4	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
615	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
674	12	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
74	13	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
182	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
193	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
210	14	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
468	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
276	12	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
411	3	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
54	13	MOTIVATION
56	13	MOTIVATION
461	9	MOTIVATION
662	5	MOTIVATION
396	6	MOTIVATION
417	6	MOTIVATION
574	8	MOTIVATION
202	2	MOTIVATION
460	13	OFFICE MACHINES
237	13	OFFICE TECHNOLOGY
584	10	OFFICE TECHNOLOGY
14	8	PEOPLE SKILLS
118	13	PEOPLE SKILLS
139	9	PEOPLE SKILLS
149	5	PEOPLE SKILLS
178	10	PEOPLE SKILLS
216	9	PEOPLE SKILLS
262	6	PEOPLE SKILLS
296	8	PEOPLE SKILLS
420	2	PEOPLE SKILLS
483	13	PEOPLE SKILLS
516	8	PEOPLE SKILLS
649	8	PEOPLE SKILLS
655	14	PEOPLE SKILLS
137	7	PEOPLE SKILLS
189	10	PEOPLE SKILLS
202	2	PEOPLE SKILLS
241	6	PEOPLE SKILLS
246	6	PEOPLE SKILLS
446	7	PEOPLE SKILLS

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
601	9	PEOPLE SKILLS
802	12	PEOPLE SKILLS
128	13	PEOPLE SKILLS
426	5	PEOPLE SKILLS
558	13	PEOPLE SKILLS
579	11	PHOTOGRAPHY SKILLS
56	13	PHYSICAL ABILITY
202	2	PHYSICAL ABILITY
411	3	PHYSICS
273	11	PRINT
55	6	PRIOR EXPERIENCE
64	3	PRIOR EXPERIENCE
105	5	PRIOR EXPERIENCE
113	14	PRIOR EXPERIENCE
173	11	PRIOR EXPERIENCE
280	12	PRIOR EXPERIENCE
413	12	PRIOR EXPERIENCE
468	11	PRIOR EXPERIENCE
648	9	PRIOR EXPERIENCE
261	6	PRIOR EXPERIENCE
490	14	PRIOR EXPERIENCE
600	5	PRIOR EXPERIENCE
446	7	PRIOR EXPERIENCE
552	6	PRIOR EXPERIENCE
393	5	PROBLEM SOLVING
479	2	PROBLEM SOLVING
296	8	PROBLEM SOLVING
558	13	PROBLEM SOLVING
563	10	PROBLEM SOLVING
419	5	PROBLEM SOLVING
651	14	PROGRAMING SKILLS AND ABILITIES
414	10	PROGRAMING SKILLS AND ABILITIES
411	3	PROGRAMING SKILLS AND ABILITIES
203	14	PUBLIC RELATIONS
647	2	RESPECT
601	9	SALES ABILITY
469	7	SALES TRAINING
411	3	SCIENCE
42	13	SCIENCE
49	13	SCIENCE
558	13	SELF-MOTIVATION
581	13	SELF-MOTIVATION
516	8	SELF-MOTIVATION
411	3	SELF-MOTIVATION
88	11	SPECIALIZED COLLEGE TRAINING PROGRAMS
157	13	SPELLING
628	6	SPELLING
124	11	SPELLING
597	13	TEAM ATTITUDE
42	13	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
143	14	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
222	6	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED

Future Skills/Alphabetical Listing

ID	SIC CLASS	FUTURE SKILL
261	6	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
408	5	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
532	12	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
582	12	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
597	13	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
675	12	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
105	5	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
251	13	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
243	13	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
290	4	TELECOMMUNICATIONS
52	11	TELECOMMUNICATIONS
212	14	TELECOMMUNICATIONS
557	11	TELECOMMUNICATIONS SYSTEMS APTITUDE
49	13	TRADES
101	7	TYPING
124	11	TYPING
578	10	TYPING
628	6	TYPING
635	10	TYPING
178	10	TYPING
198	9	TYPING
164	11	TYPING
60	11	TYPING
426	5	TYPING
273	11	TYPESET
4	10	UNDERSTANDING GENERAL BANKING
113	14	VOLUNTEER TRAINING
494	6	WE MAY SET UP A TESTING PROCEDURE.
206	4	WILLINGNESS FOR RETRAINING
235	9	WILLINGNESS FOR RETRAINING
298	3	WILLINGNESS FOR RETRAINING
582	12	WILLINGNESS FOR RETRAINING
212	14	WILLINGNESS FOR RETRAINING
304	13	WORK ATTITUDE
156	8	WORK FORCE REQUIREMENTS WILL REMAIN THE SAME
157	13	WRITING
557	13	WRITING

ATTACHMENT C - EMPLOYERS SURVEY

3. Skills Today's Students
Will Need in the Future

(General SIC Listing)

ANALYSIS OF DATA - EMPLOYER SURVEY

GENERAL STANDARD INDUSTRICAL CLASSIFICATION (SIC) LISTING:

SKILLS TODAY'S STUDENTS WILL NEED IN THE FUTURE

Prepared by:

The Greater Madison Task Force

for Planning Occupational Skills Education

The survey of Employers conducted by the Greater Madison Task Force for Planning Occupational Skills Education sought information about skills today's high school students would need in the future. An open ended survey question asked employers to identify the skills students would need in the future.

Of the 595 respondents who provided usable information, 266 indicated a variety of skills today's students would need in the future. The other 329 respondents either did not respond or indicated the future would not require any new skills.

Some employers only indicated one additional skill which today's students would need in the future. Others, however, listed several additional skills. In analyzing the responses, each future skill was identified separately. If an employer listed four new skills, each new skill was listed separately; but the employer is listed four times. Skills are listed by General SIC Class.

In column, the "id" number of the respondent is listed. In column two, the General Standard Industrial Class (SIC) Class is listed. In column three, the new skill is identified. Table 1 presents the General SIC Classes.

Table 1

General SIC Classes

1 = Agriculture
2 = Mining and Construction
3 = Durable Goods Manufacturing
4 = Non-Durable Goods Manufacturing
5 = Transportation and Utilities
6 = Wholesale Trade
7 = General Merchandise, Food Apparel and Furniture
8 = Eating and Drinking Places
9 = Other Retail Stores
10 = Finance, Insurance, Real Estate
11 = Business and Legal Services
12 = Health Services
13 = Other Services
14 = Government

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
		AGRICULTURE
301	1	COMPUTER LITERACY AND SKILLS
70	1	COMPUTER LITERACY AND SKILLS
23	1	COMMUNICATION SKILLS
473	1	MORE AUTOMATED EQUIPMENT
624	1	MORE SPECIALIZED TRAINING WILL BE REQUIRED
23	1	MORE TECHNICAL TRAINING IN AGRONOMY
70	1	MECHANICAL SKILLS
		MINING AND CONSTRUCTION
242	2	ADAPTABLE, ABLE TO LEARN NEW SKILLS
420	2	BROAD CONSTRUCTION KNOWLEDGE
202	2	COMPUTER LITERACY AND SKILLS
242	2	ABILITY TO CHANGE
647	2	COMMUNICATION SKILLS
479	2	KNOWLEDGE OF BUSINESS THEORY
530	2	MORE COMMON SENSE
439	2	MORE ELECTRICAL AND CONTROLS KNOWLEDGE
647	2	MATH
202	2	MOTIVATION
420	2	PEOPLE SKILLS
202	2	PEOPLE SKILLS
202	2	PHYSICAL ABILITY
479	2	PROBLEM SOLVING SKILLS
647	2	RESPECT
		DURABLE GOODS MANUFACTURING
522	3	BLUE PRINT KNOWLEDGE
48	3	COMPUTER LITERACY AND SKILLS
239	3	COMPUTER LITERACY AND SKILLS
50	3	COMPUTER LITERACY AND SKILLS
201	3	COMPUTER LITERACY AND SKILLS
608	3	ABILITY TO CHANGE
298	3	ABILITY TO CHANGE
411	3	ABILITY TO CHANGE
265	3	COMMUNICATION SKILLS
265	3	COMPREHEND
411	3	COMPUTER/ELECTRICAL ENGINEERING
522	3	ELECTRICITY

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
411	3	GEOLOGY
84	3	MORE AUTOMATION
299	3	MORE ELECTRONICS
208	3	MORE HIGH TECHNOLOGY EQUIP
298	3	WILLINGNESS FOR RETRAINING
298	3	MORE SCIENCE TRAINING
47	3	MORE TRAINING REQUIRED IN FUTURE
432	3	MORE TRAINING REQUIRED IN FUTURE
522	3	MORE TRAINING REQUIRED IN FUTURE
64	3	MORE TRAINING REQUIRED IN FUTURE
411	3	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
50	3	MATH
411	3	MATH
522	3	MATH
411	3	PHYSICS
64	3	PRIOR EXPERIENCE
411	3	PROGRAMING SKILLS AND ABILITIES
411	3	SCIENCE
411	3	SELF-MOTIVATION
201	3	COMPUTER SKILL - WORD PROCESSING
208	3	COMPUTER SKILL - WORD PROCESSING

NON-DURABLE GOODS MANUFACTURING

605	4	AMBITIOUS
34	4	COMPUTER LITERACY AND SKILLS
82	4	COMPUTER LITERACY AND SKILLS
279	4	COMPUTER LITERACY AND SKILLS
290	4	COMPUTER LITERACY AND SKILLS
295	4	COMPUTER LITERACY AND SKILLS
497	4	COMPUTER LITERACY AND SKILLS
424	4	COMPUTER LITERACY AND SKILLS
206	4	COMPUTER LITERACY AND SKILLS
206	4	ABILITY TO CHANGE
605	4	ABILITY TO CHANGE
577	4	ELECTRICAL PROBLEM SOLVING
82	4	ELECTRONIC APTITUDE
206	4	ELECTRONICS
577	4	MORE AUTOMATION
206	4	WILLINGNESS FOR RETRAINING
424	4	MORE TRAINING REQUIRED IN FUTURE
82	4	MORE TRAINING REQUIRED IN FUTURE
590	4	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
424	4	MATH
290	4	TELECOMMUNICATIONS
110	4	COMPUTER SKILL - WORD PROCESSING
487	4	COMPUTER SKILL - WORD PROCESSING

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
		TRANSPORTATION AND UNTILITIES
645	5	ADAPTABLE, ABLE TO LEARN NEW SKILLS
662	5	ADAPTABLE, ABLE TO LEARN NEW SKILLS
170	5	COMPUTER LITERACY AND SKILLS
172	5	COMPUTER LITERACY AND SKILLS
426	5	COMPUTER LITERACY AND SKILLS
464	5	COMPUTER LITERACY AND SKILLS
606	5	COMPUTER LITERACY AND SKILLS
73	5	COMPUTER LITERACY AND SKILLS
600	5	COMPUTER LITERACY AND SKILLS
172	5	CRT OPERATING SKILLS
419	5	ABILITY TO CHANGE
596	5	ABILITY TO CHANGE
645	5	ABILITY TO CHANGE
426	5	COMPREHEND
73	5	ELECTRONICS
600	5	ELECTRONICS
580	5	MORE AUTOMATION
149	5	MORE SPECIALIZED TRAINING WILL BE REQUIRED
73	5	MORE TRAINING REQUIRED IN FUTURE
600	5	MORE TRAINING REQUIRED IN FUTURE
580	5	MORE TRAINING REQUIRED IN FUTURE
172	5	MORE TRAINING REQUIRED IN FUTURE
108	5	MORE TECHNICAL TRAINING
393	5	MECHANICAL ABIL
662	5	MOTIVATION
149	5	PEOPLE SKILLS
426	5	PEOPLE SKILLS
105	5	PRIOR EXPERIENCE
600	5	PRIOR EXPERIENCE
393	5	PROBLEM SOLVING
419	5	PROBLEM SOLVING
408	5	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
105	5	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
426	5	TYPING
606	5	COMPUTER SKILL - WORD PROCESSING
419	5	COMPUTER SKILL - WORD PROCESSING
		WHOLESALE TRADE
518	6	ADAPTABLE, ABLE TO LEARN NEW SKILLS
148	6	ATTENDANCE
417	6	ATTITUDE
39	6	COMPUTER LITERACY AND SKILLS
72	6	COMPUTER LITERACY AND SKILLS

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
194	6	COMPUTER LITERACY AND SKILLS
241	6	COMPUTER LITERACY AND SKILLS
246	6	COMPUTER LITERACY AND SKILLS
440	6	COMPUTER LITERACY AND SKILLS
148	6	COMPUTER LITERACY AND SKILLS
11	6	CRT OPERATING SKILLS
417	6	ABILITY TO CHANGE
241	6	COMMUNICATION SKILLS
148	6	COMMUNICATION SKILLS
396	6	COMPUTER SKILL - DATA PROCESSING/ENTRY
615	6	ELECTRONIC KNOWLEDGE
564	6	MORE SPECIALIZED TRAINING WILL BE REQUIRED
55	6	MORE SPECIALIZED TRAINING WILL BE REQUIRED
11	6	MORE TRAINING REQUIRED IN FUTURE
95	6	MORE TRAINING REQUIRED IN FUTURE
552	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
615	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
246	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
260	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
518	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
611	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
21	6	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
628	6	MATH
21	6	MICRO PROCESS EQUIPMENT
396	6	MOTIVATION
417	6	MOTIVATION
262	6	PEOPLE SKILLS
241	6	PEOPLE SKILLS
246	6	PEOPLE SKILLS
55	6	PRIOR EXPERIENCE
261	6	PRIOR EXPERIENCE
552	6	PRIOR EXPERIENCE - TELEPHONE INSTALLATION
628	6	SPELLING
222	6	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
261	6	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
628	6	TYPING
11	6	COMPUTER SKILL - WORD PROCESSING
494	6	WE MAY SET UP A TESTING PROCEDURE.

GENERAL MERCHANDISE, FOOD, APPAREL AND FURNITURE

446	7	ALERT
533	7	APPEARANCE
120	7	COMPUTER LITERACY AND SKILLS
640	7	CRT OPERATING SKILLS
446	7	ABILITY TO CHANGE
533	7	COMMUNICATION SKILLS
640	7	ELECTRONIC REGISTERS
640	7	EQUIPMENT

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
640	7	FOLLOW DIRECTIONS
498	7	HIGHLY LABOR INTENSIVE
125	7	KNOWLEDGE OF ECONOMICS
533	7	KNOWLEDGE OF ATHLETICS
137	7	MORE SALES ABILITY
137	7	MORE TRAINING REQUIRED IN FUTURE
309	7	MORE TRAINING REQUIRED IN FUTURE
469	7	MORE TRAINING REQUIRED IN FUTURE
137	7	PEOPLE SKILLS
446	7	PEOPLE SKILLS
446	7	PRIOR EXPERIENCE
469	7	SALES TRAINING
101	7	TYPING

EATING AND DRINKING PLACES

14	8	COMMUNICATION SKILLS
574	8	MORE KNOWLEDGE
574	8	MOTIVATION
14	8	PEOPLE SKILLS
296	8	PEOPLE SKILLS
516	8	PEOPLE SKILLS
649	8	PEOPLE SKILLS
296	8	PROBLEM SOLVING
516	8	SELF-MOTIVATION
156	8	TECHNOLOGY WILL NOT TAKE OVER ANY EXISTING POSITIONS
156	8	WORK FORCE REQUIREMENTS WILL REMAIN THE SAME

OTHER RETAIL STORES

447	9	ALERT
2	9	COMPUTER LITERACY AND SKILLS
152	9	COMPUTER LITERACY AND SKILLS
198	9	COMPUTER LITERACY AND SKILLS
253	9	COMPUTER LITERACY AND SKILLS
289	9	COMPUTER LITERACY AND SKILLS
434	9	COMPUTER LITERACY AND SKILLS
520	9	COMPUTER LITERACY AND SKILLS
601	9	COMPUTER LITERACY AND SKILLS
633	9	COMPUTER LITERACY AND SKILLS
235	9	ABILITY TO CHANGE
447	9	ABILITY TO CHANGE
601	9	COMMUNICATION SKILLS
2	9	CRT OPERATING SKILLS
434	9	ELECTRONICS

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
235	9	WILLINGNESS FOR RETRAINING
253	9	MORE TRAINING REQUIRED IN FUTURE
431	9	MORE TRAINING REQUIRED IN FUTURE
648	9	MORE TRAINING REQUIRED IN FUTURE
601	9	MATH
461	9	MOTIVATION
139	9	PEOPLE SKILLS
216	9	PEOPLE SKILLS
601	9	PEOPLE SKILLS
648	9	PRIOR EXPERIENCE
601	9	SALES ABILITY
198	9	TYPING

FINANCE, INSURANCE, REAL ESTATE

414	10	ACCOUNTING
657	10	ADAPTABLE, ABLE TO LEARN NEW SKILLS
4	10	COMPUTER LITERACY AND SKILLS
17	10	COMPUTER LITERACY AND SKILLS
18	10	COMPUTER LITERACY AND SKILLS
63	10	COMPUTER LITERACY AND SKILLS
161	10	COMPUTER LITERACY AND SKILLS
189	10	COMPUTER LITERACY AND SKILLS
271	10	COMPUTER LITERACY AND SKILLS
416	10	COMPUTER LITERACY AND SKILLS
437	10	COMPUTER LITERACY AND SKILLS
524	10	COMPUTER LITERACY AND SKILLS
541	10	COMPUTER LITERACY AND SKILLS
563	10	COMPUTER LITERACY AND SKILLS
567	10	COMPUTER LITERACY AND SKILLS
584	10	COMPUTER LITERACY AND SKILLS
586	10	COMPUTER LITERACY AND SKILLS
623	10	COMPUTER LITERACY AND SKILLS
634	10	COMPUTER LITERACY AND SKILLS
636	10	COMPUTER LITERACY AND SKILLS
656	10	COMPUTER LITERACY AND SKILLS
578	10	COMPUTER LITERACY AND SKILLS
178	10	COMPUTER LITERACY AND SKILLS
187	10	CRT OPERATING SKILLS
197	10	CRT OPERATING SKILLS
635	10	CRT OPERATING SKILLS
4	10	CRT OPERATING SKILLS
657	10	ABILITY TO CHANGE
586	10	COMMUNICATION SKILLS
178	10	COMPREHEND
104	10	COMPUTER SKILL - DATA PROCESSING/ENTRY
414	10	COMPUTER SKILL - DATA PROCESSING/ENTRY
567	10	COMPUTER SKILL - DATA PROCESSING/ENTRY
656	10	HIGH TECHNOLOGY

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
627	10	INSURANCE KNOWLEDGE
423	10	MORE AUTOMATION
193	10	MORE SPECIALIZED TRAINING WILL BE REQUIRED
414	10	MORE SPECIALIZED TRAINING WILL BE REQUIRED
38	10	MORE TRAINING REQUIRED IN FUTURE
627	10	MORE TRAINING REQUIRED IN FUTURE
193	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
471	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
657	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
63	10	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
586	10	MATH
584	10	OFFICE TECHNOLOGY
178	10	PEOPLE SKILLS
189	10	PEOPLE SKILLS
563	10	PROBLEM SOLVING
414	10	PROGRAMING SKILLS AND ABILITIES
578	10	TYPING
635	10	TYPING
178	10	TYPING
4	10	UNDERSTANDING GENERAL BANKING
104	10	COMPUTER SKILL - WORD PROCESSING
18	10	COMPUTER SKILL - WORD PROCESSING
161	10	COMPUTER SKILL - WORD PROCESSING
187	10	COMPUTER SKILL - WORD PROCESSING
197	10	COMPUTER SKILL - WORD PROCESSING
623	10	COMPUTER SKILL - WORD PROCESSING
656	10	COMPUTER SKILL - WORD PROCESSING
567	10	COMPUTER SKILL - WORD PROCESSING

BUSINESS AND LEGAL SERVICES

97	11	ADAPTABLE, ABLE TO LEARN NEW SKILLS
661	11	ADAPTABLE, ABLE TO LEARN NEW SKILLS
52	11	COMPUTER LITERACY AND SKILLS
57	11	COMPUTER LITERACY AND SKILLS
60	11	COMPUTER LITERACY AND SKILLS
88	11	COMPUTER LITERACY AND SKILLS
92	11	COMPUTER LITERACY AND SKILLS
97	11	COMPUTER LITERACY AND SKILLS
183	11	COMPUTER LITERACY AND SKILLS
190	11	COMPUTER LITERACY AND SKILLS
230	11	COMPUTER LITERACY AND SKILLS
282	11	COMPUTER LITERACY AND SKILLS
294	11	COMPUTER LITERACY AND SKILLS
458	11	COMPUTER LITERACY AND SKILLS
496	11	COMPUTER LITERACY AND SKILLS
557	11	COMPUTER LITERACY AND SKILLS
579	11	COMPUTER LITERACY AND SKILLS
678	11	COMPUTER LITERACY AND SKILLS

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
173	11	COMPUTER LITERACY AND SKILLS
569	11	COMPUTER LITERACY AND SKILLS
803	11	COMPUTER LITERACY AND SKILLS
92	11	CRT OPERATING SKILLS
97	11	CRT OPERATING SKILLS
97	11	ABILITY TO CHANGE
569	11	CLIENT INFORMATION KNOWL
803	11	COMMUNICATION SKILLS
52	11	COMMUNICATION SKILLS
569	11	COMPUTER SKILL - DATA PROCESSING/ENTRY
92	11	COMPUTER SKILL - DATA PROCESSING/ENTRY
629	11	DICTATION EQUIPMENT
230	11	EFFICIENCY
124	11	GRAMMAR
294	11	KNOWLEDGE ECONOMICS
273	11	LAY-OUT
173	11	MANAGEMENT
90	11	MORE AUTOMATION
144	11	MORE SPECIALIZED TRAINING WILL BE REQUIRED
182	11	MORE TRAINING REQUIRED IN FUTURE
474	11	MORE TRAINING REQUIRED IN FUTURE
90	11	MORE TRAINING REQUIRED IN FUTURE
458	11	MORE TRAINING REQUIRED IN FUTURE
629	11	MORE TRAINING REQUIRED IN FUTURE
182	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
468	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
273	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
274	11	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
579	11	MICRO PROCESS EQUIPMENT
579	11	PHOTOGRAPHY SKILLS
273	11	PRINTING
173	11	PRIOR EXPERIENCE
468	11	PRIOR EXPERIENCE
88	11	SPECIALIZED COLLEGE TRAINING PROGRAMS
124	11	SPELLING
557	11	TELECOMMUNICATIONS SYSTEMS APTITUDE
52	11	TELECOMMUNICATIONS
124	11	TYPING
164	11	TYPING
60	11	TYPING
273	11	TYPESET
91	11	COMPUTER SKILL - WORD PROCESSING
629	11	COMPUTER SKILL - WORD PROCESSING
803	11	COMPUTER SKILL - WORD PROCESSING
124	11	COMPUTER SKILL - WORD PROCESSING
164	11	COMPUTER SKILL - WORD PROCESSING
496	11	COMPUTER SKILL - WORD PROCESSING
557	11	COMPUTER SKILL - WORD PROCESSING

ID	SIC CLASS	FUTURE SKILL
		HEALTH SERVICES
180	12	COMPUTER LITERACY AND SKILLS
186	12	COMPUTER LITERACY AND SKILLS
233	12	COMPUTER LITERACY AND SKILLS
276	12	COMPUTER LITERACY AND SKILLS
297	12	COMPUTER LITERACY AND SKILLS
435	12	COMPUTER LITERACY AND SKILLS
467	12	COMPUTER LITERACY AND SKILLS
802	12	COMPUTER LITERACY AND SKILLS
413	12	COMPUTER LITERACY AND SKILLS
276	12	CRT OPERATING SKILLS
390	12	COMPUTER SKILL - DATA PROCESSING/ENTRY
270	12	DETAILS
270	12	FOLLOW INSTRUCTIONS
582	12	WILLINGNESS FOR RETRAINING
280	12	MORE TRAINING REQUIRED IN FUTURE
674	12	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
276	12	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
802	12	PEOPLE SKILLS
280	12	PRIOR EXPERIENCE
413	12	PRIOR EXPERIENCE
532	12	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
582	12	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
675	12	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
		OTHER SERVICES
537	13	ACCURATE RECORD KEEPING
107	13	ADAPTABLE, ABLE TO LEARN NEW SKILLS
455	13	AUTOMATIC EQUIPMENT
16	13	COMPUTER LITERACY AND SKILLS
74	13	COMPUTER LITERACY AND SKILLS
128	13	COMPUTER LITERACY AND SKILLS
154	13	COMPUTER LITERACY AND SKILLS
159	13	COMPUTER LITERACY AND SKILLS
169	13	COMPUTER LITERACY AND SKILLS
228	13	COMPUTER LITERACY AND SKILLS
306	13	COMPUTER LITERACY AND SKILLS
406	13	COMPUTER LITERACY AND SKILLS
412	13	COMPUTER LITERACY AND SKILLS
449	13	COMPUTER LITERACY AND SKILLS
477	13	COMPUTER LITERACY AND SKILLS
486	13	COMPUTER LITERACY AND SKILLS
504	13	COMPUTER LITERACY AND SKILLS
553	13	COMPUTER LITERACY AND SKILLS

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
632	13	COMPUTER LITERACY AND SKILLS
668	13	COMPUTER LITERACY AND SKILLS
163	13	COMPUTER LITERACY AND SKILLS
243	13	COMPUTER LITERACY AND SKILLS
49	13	COMPUTER LITERACY AND SKILLS
607	13	CRT OPERATING SKILLS
100	13	ABILITY TO CHANGE
107	13	ABILITY TO CHANGE
460	13	ABILITY TO CHANGE
237	13	ABILITY TO CHANGE
243	13	COMMUNICATION SKILLS
128	13	COMMUNICATION SKILLS
483	13	COMMUNICATION SKILLS
229	13	COMMUNICATION SKILLS
49	13	COMMUNICATION SKILLS
126	13	COMPREHEND
157	13	COMPREHEND
142	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
448	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
115	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
284	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
460	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
128	13	COMPUTER SKILL - DATA PROCESSING/ENTRY
157	13	DEPENDABLE
16	13	ELECTRONIC EQUIPMENT
480	13	ENGINE KNOWLEDGE
74	13	ENGINE REPAIR
100	13	EQUIPMENT KNOWLEDGE
581	13	FOLLOW DIRECTIONS
54	13	KNOWLEDGE OF BASICS
74	13	HVAC
175	13	MORE COMMUNICATION SKILLS
558	13	MORE SPECIALIZED TRAINING WILL BE REQUIRED
49	13	MORE TRAINING REQUIRED IN FUTURE
115	13	MORE TRAINING REQUIRED IN FUTURE
229	13	MORE TRAINING REQUIRED IN FUTURE
251	13	MORE TRAINING REQUIRED IN FUTURE
455	13	MORE TRAINING REQUIRED IN FUTURE
638	13	MORE TRAINING REQUIRED IN FUTURE
219	13	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
74	13	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
620	13	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
480	13	MACHINE OPERATION
460	13	MANAGEMENT
42	13	MATH
537	13	MATH
56	13	MORAL CHARACTER
54	13	MOTIVATION
56	13	MOTIVATION
460	13	OFFICE MACHINES
237	13	OFFICE TECHNOLOGY
118	13	PEOPLE SKILLS

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
483	13	PEOPLE SKILLS
128	13	PEOPLE SKILLS
558	13	PEOPLE SKILLS
56	13	PHYSICAL ABILITY
558	13	PROBLEM SOLVING
42	13	SCIENCE
49	13	SCIENCE
558	13	SELF-MOTIVATION
581	13	SELF-MOTIVATION
157	13	SPELLING
42	13	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
597	13	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
251	13	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
597	13	TEAM ATTITUDE
49	13	TRADES
243	13	TRAINING IN SPECIFIC TECHNOLOGIES
163	13	COMPUTER SKILL - WORD PROCESSING
237	13	COMPUTER SKILL - WORD PROCESSING
284	13	COMPUTER SKILL - WORD PROCESSING
128	13	COMPUTER SKILL - WORD PROCESSING
412	13	COMPUTER SKILL - WORD PROCESSING
448	13	COMPUTER SKILL - WORD PROCESSING
553	13	COMPUTER SKILL - WORD PROCESSING
668	13	COMPUTER SKILL - WORD PROCESSING
304	13	WORK ATTITUDE
157	13	WRITING
537	13	WRITING

GOVERNMENT

111	14	COMPUTER LITERACY AND SKILLS
112	14	COMPUTER LITERACY AND SKILLS
192	14	COMPUTER LITERACY AND SKILLS
196	14	COMPUTER LITERACY AND SKILLS
210	14	COMPUTER LITERACY AND SKILLS
212	14	COMPUTER LITERACY AND SKILLS
303	14	COMPUTER LITERACY AND SKILLS
512	14	COMPUTER LITERACY AND SKILLS
554	14	COMPUTER LITERACY AND SKILLS
592	14	COMPUTER LITERACY AND SKILLS
651	14	COMPUTER LITERACY AND SKILLS
203	14	COMPUTER LITERACY AND SKILLS
215	14	COMPUTER LITERACY AND SKILLS
111	14	CRT OPERATING SKILLS
212	14	ABILITY TO CHANGE
113	14	COMMUNICATION SKILLS
196	14	COMPREHEND
203	14	COMPUTER SKILL - DATA PROCESSING/ENTRY
215	14	COMPUTER SKILL - DATA PROCESSING/ENTRY

Future Skills/General SIC Listing

ID	SIC CLASS	FUTURE SKILL
667	14	COMPUTER SKILL - DATA PROCESSING/ENTRY
203	14	DICTATION
547	14	MORE AUTOMATION
212	14	WILLINGNESS FOR RETRAINING
517	14	MORE SPECIALIZED TRAINING WILL BE REQUIRED
667	14	MORE SPECIALIZED TRAINING WILL BE REQUIRED
490	14	MORE TRAINING REQUIRED IN FUTURE
210	14	MORE TECHNICAL TRAINING REQUIRED IN FUTURE
517	14	MAINTENANCE
655	14	PEOPLE SKILLS
113	14	PRIOR EXPERIENCE
490	14	PRIOR EXPERIENCE
651	14	PROGRAMING SKILLS AND ABILITIES
203	14	PUBLIC RELATIONS
143	14	TECHNICAL SCHOOL TRAINING WILL BE REQUIRED
212	14	TELECOMMUNICATIONS
113	14	VOLUNTEER TRAINING
619	14	COMPUTER SKILL - WORD PROCESSING
196	14	COMPUTER SKILL - WORD PROCESSING
212	14	COMPUTER SKILL - WORD PROCESSING
303	14	COMPUTER SKILL - WORD PROCESSING
512	14	COMPUTER SKILL - WORD PROCESSING
215	14	COMPUTER SKILL - WORD PROCESSING

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ATTACHMENT C - EMPLOYERS SURVEY

4. Jobs Employers Will Offer to High School Graduates

(General SIC Listing)

ANALYSIS OF DATA - EMPLOYER SURVEY

GENERAL STANDARD INDUSTRIAL CLASSIFICATION (SIC) LISTING:

JOBS EMPLOYERS WILL OFFER TO HIGH SCHOOL GRADUATES

Prepared by:

The Greater Madison Task Force

for Planning Occupational Skills Education

Employers were asked to list the entry jobs they would offer to high school graduates as well as the skills high school grads would need to obtain these jobs. In some instances, employers also evaluated the skill levels of recent high school graduates employed by the business/organization. The following is a list of their responses which are arranged according to General SIC Classes.

Surveys were sent to over 2,200 employers located in school districts participating on the Task Force, and 695 were returned for a response rate of 30.5 percent. Of these, 595 indicated they would offer one or more jobs to a high school graduate, and a total of 955 job titles were listed. In this list, a particular job title repeats because it is associated with a different employer each time it is listed.

The first column gives the "id" number assigned to each survey respondent. The second column provides the four-digit SIC number assigned each employer by the Department of Industry, Labor, and Human Relations. The third column lists the size classification to which the employer belongs. The fourth column contains the job title and skills the employer identified as being required for the position listed. The "0" or "X" after the job title indicates if the employer provided any evaluative information on the skill levels of recent high school graduates employed by the business/organization. An "0" indicates NO evaluative comment concerning skill levels of recent grads. An "X" indicates there IS an evaluative comment concerning the skill levels of recent grads.

Table 1

SIZE CLASSIFICATION CODE

1 = 0 - 3 FTE	4 = 20 - 49 FTE
2 = 4 - 9 FTE	5 = 50 - 250 FTE
3 = 10 - 19 FTE	6 = 250+ FTE

Job Titles/General SIC Class

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

AGRICULTURE

AGRICULTURAL PRODUCTION -- CROPS

473 115 1 LABORER/SEASONAL O
473 115 1 MANAGER O SUPERVISE PEOPLE, PAPER WORK
624 115 3 CLERICAL O TYPING, FILING, COMPUTER
624 115 3 LABORER O OPER FARM EQUIP
70 115 4 LABORER O
70 115 4 LABORER/SEASONAL O
70 115 4 SECRETARY O
70 115 4 WAREHOUSE O

AGRICULTURAL SERVICES

301 740 0 JANITOR X
23 780 1 LAWN CARE APPLICATOR X SALES TECHNIQUES, HORTICULTURAL KNOWL
41 780 2 LABORER O

MINING AND CONSTRUCTION

GENERAL BUILDING CONTRACTORS

609 1520 1 LABORER O
420 1520 1 LABORER O MATH, PROBLEM SOLVING
24 1520 2 APPRENTICE CARPENTER O ABIL USE TOOLS, READ SQUARE/RULER, FINSTRUC
24 1520 2 CARPENTER HELPER O READ RULER,
24 1520 2 LABORER O
653 1520 4 CARPENTER O SKILLED W TOOLS
653 1520 4 LABORER O
36 1540 3 LABORER O
451 1540 4 LABORER O
202 1540 5 ACCOUNT CLERK O TYPING, FILING
199 1540 5 APPRENTICE O
542 1540 5 APPRENTICE O
202 1540 5 APPRENTICE O MANUAL SKILLS/APT
542 1540 5 CLERICAL O
199 1540 5 CLERICAL O
202 1540 5 CLERICAL O TYPING, FILING, SHORTHAND, WORD PROCESSING
199 1540 5 DATA ENTRY O
202 1540 5 LABORER O MANUAL SKILLS & APT
542 1540 5 RECORDS CLERK O
542 1540 5 SECRETARY O

HEAVY CONSTRUCTION CONTRACTORS

572 1623 4 EQUIP OPER O FDIRECT, MECHANICAL ABIL
572 1623 4 LABORER O FDIRECT

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

SPECIAL TRADE CONTRACTORS

676 1711 2 APPRENTICE O
479 1711 2 CARPENTER O
238 1711 3 APPRENTICE X MATH, SLIDE RULE
238 1711 3 LABORER X MATH, SLIDE RULE
439 1711 4 APPRENTICE O
499 1711 4 APPRENTICE PLUMBER X MATH, AMBITION, ATTIT
242 1711 4 APPRENTICE SHEET METAL O DRAFTING, SHOP, METAL
421 1711 4 APPRENTICE SHEET METAL O MECHANICAL APT
242 1711 4 APPRENTICE STEAMFIT O DRAFTING, SHOP, MATH
499 1711 4 LABORER X AMBITION, ATTIT
499 1711 4 MANAGER TRAINEE X BUSINESS ACUMEN, OFFICE SKILLS, ATTIT
46 1711 5 DISPATCHER O
46 1711 5 PARTS CLERK O
287 1721 2 APPRENTICE O MUST ATTNED VOCATIONAL TRAINING CLASSES
245 1721 4 APPRENTICE PAINTER O
647 1731 3 APPRENTICE O
236 1731 3 APPRENTICE O WILLINGNESS TO WORK, ABIL WORK W OTHERS
236 1731 3 DRIVER, TRUCK O
647 1731 3 LABORER O
530 1741 2 APPRENTICE BRICKLAYER O COMMON SENSE, MATH
530 1741 2 LABORER O COMMON SENSE, WILLING TO WORK
131 1743 2 TILE FINISHER O UNION MEMBERSHIP
131 1743 2 TILE SETTER O UNION MEMBERSHIP
491 1761 0 APPRENTICE O MECHANICAL ABIL
491 1761 0 DRIVER, TRUCK O
491 1761 0 LABORER O MECHANICAL ABIL
491 1761 0 WAREHOUSE O MECHANICAL ABIL
217 1799 3 SALES CLERK O PRODUCT KNOWL

DURABLE GOODS MANUFACTURING

STONE, CLAY, AND GLASS PRODUCTS

83 3211 5 FOOD SERVICE O MENU PLANNING, FOOD PREPARATION
83 3211 5 JANITOR/MAINTENANCE O LIGHT MECHANICS & CONSTRUCTION, ELECTRICITY
476 3271 4 CLERICAL X BUSINESS MACHINES, COMMUN, BUSINESS ACUMEN
476 3271 4 SALES CLERK X COMMUN W CUSTOMERS
476 3271 4 WAREHOUSE X DRIVING, FORK LIFT OPER

PRIMARY METAL INDUSTRIES

96 3321 4 JANITOR O

FABRICATED METAL PRODUCTS

481 3441 2 CLERICAL O TYPING, CALCULATOR, RECORD KEEPING, MATH, ENGLISH
481 3441 2 DRAFTSPERSON X STRUCTURAL STEEL DETAILING

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

299 3443 6 JANITOR O
299 3443 6 LABORER O
299 3443 6 MAIL CLERK O
299 3443 6 PACKER O
454 3471 3 PACKER O
239 3479 0 LABORER X CUSTOM WORK, CREATIVITY, PATIENCE, MACHINERY SKILLS, ORG
239 3479 0 PHOTO WORK X TYPESETTING, ART, PASTE UP, CAMERA/DARKROOM EXPER
239 3479 0 SECRETARY X TYPING 60, ENGLISH, ORGANIZATION, FILING, COMMUN

MACHINERY, EXCEPT ELECTRICAL

28 3523 1 LABORER X ABIL CUT PARTS, LOAD AND UNLOAD SUPPLIES/EQUIP
28 3523 1 PAINTER X SPRAY PAINT EFFICIENTLY
28 3523 1 SECRETARY X ORDER SUPPLIES, BOOKKEEP
28 3523 1 WELDER X
201 3561 5 ACCOUNT CLERK X MATH ABIL
201 3561 5 CLERICAL X TYPING, SPELLING, PUNCTUATION, GRAMMAR
51 3566 2 LABORER O
292 3576 3 LABORER X COMMUN, EMPLOYEE RELAT
292 3576 3 WELDER X STRONG WORK ETHIC, PRIDE IN JOB, PRIDE IN PRODUCT
84 3589 5 ASSEMBLY O EYE/HAND COOR, FINGER DEXTERITY, MECHANICAL APT
522 3589 5 ASSEMBLY X SHOP COURSES, MATH, WRITING
522 3589 5 CLERICAL X TYPING, SPELLING, ENGLISH
522 3589 5 PUNCH PRESS OPER X MECHANICAL DRAWING, SHOP COURSES, WELDING
84 3589 5 TRIMMER O EYE/HAND COOR, FINGER DEXTERITY, MECHANICAL APT
565 3599 4 JANITOR O
565 3599 4 LABORER O
565 3599 4 PAINTER O

ELECTRICAL AND ELECTRONIC EQUIPMENT

298 3661 5 CLERICAL X TYPING, OFFICE MACH, TELEPHONE, FILING, ORGANIZATION
298 3661 5 ELECTRONIC ASSEMBLY X KNOWL ELECTRONIC COMPONENTS
298 3661 5 ELECTRONIC TEST X KNOWL ELECTRONIC COMPONENTS, TEST EQUIPMENT,
298 3661 5 JANITOR X
298 3661 5 SECRETARY X TYPING, SPELLING, PROOF READING, FILING, TELEPHONE
608 3692 0 CELL ASSEMBLY O
608 3692 0 CLERICAL O TYPING
608 3692 0 DRIVER, TRUCK O
608 3692 0 MACHINIST TRAINEE O
608 3692 0 MAIL CLERK O
608 3692 0 RECEPTIONIST O TYPING, MEETING PUBLIC, TELEPHONE

INSTRUMENTS AND RELATED PRODUCTS

208 3811 3 ASSEMBLY O FDIRECT, ABIL TO COMMUN/PROBLEM SOLVE
208 3811 3 CLERICAL X MATH, BOOKKEEP, SPELLING, GRAMMAR
411 3811 5 ASSEMBLY O
411 3811 5 MAINTENANCE O

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

411 3811 5 SHIPPING O
48 3829 3 JANITOR O
48 3829 3 SHIPPING O
136 3842 2 APPRENTICE LEATHER WORKER O

NON-DURABLE GOODS MANUFACTURING

FOOD AND KINDRED PRODUCTS

488 2013 3 LABORER O
453 2021 4 LABORER O COOR, DEXTERITY, PHYSICALLY FIT
453 2021 4 SHIPPING/RECEIVING O COOR, DEXTERITY, PHYSICALLY FIT
195 2048 0 CLERICAL O TYPING, ACCOUNTING, TELEPHONE
195 2048 0 LABORER O GOOD PHYSICAL CONDITION
605 2048 4 CLERICAL O TYPING, BUSINESS MACHINES, TELEPHONE
605 2048 4 WAREHOUSE O MATH, ABIL DEAL W PEOPLE
234 2051 3 BAKER HELPER O FINSTRUCT,KNOWL MEASURESMENT
234 2051 3 DRIVER O MEMORY, CHECK DELIVERIES
234 2051 3 PACKER O ACCURACY, ATTENT
495 2086 0 WAREHOUSE O

APPAREL AND OTHER TEXTILE PRODUCTS

444 2394 3 AWNING MECHANICS/INSTALLERS O
444 2394 3 TENT INSTALLERS O

APPAREL AND OTHER TEXTILE PRODUCTS

821 2421 2 ASSEMBLY/PALLET O FDIRECT, WORK ON OWN,
821 2421 2 LABORER O DESIRE TO WORK, WORK IN ALL WEATHER
821 2421 2 TREE CUTTER O KNOWL CHAIN SAW, SAFETY,
432 2452 4 LABORER O WILLING TO WORK, SELF STARTING, RIGHT ATTIT, WILLING TO

FURNITURE AND FIXTURES

283 2541 2 APPRENTICE CABINET MKR O ABIL WORK WITH WOODWORKING EQUIP
47 2591 6 CLERICAL O NUMBER SKILLS, ORGANIZATION, TYPING
47 2591 6 LABORER O NUMBER SKILLS

PRINTING AND PUBLISHING

34 2711 2 AD/NEWS LAYOUT X KNOWL LAYOUT WORK
34 2711 2 DRIVER/PRESS HELPER O KNOW MECHANICAL
34 2711 2 SECRETARY X BUSINESS COURSES
110 2721 2 CLERICAL X TYPING, ENGLISH, SPELLING, GRAMMAR, SPEAKING ABIL
497 2721 3 CLERICAL X TYPING, MATH, WRITING, COMMUN
505 2741 3 CLERICAL O TYPING, CALCULATOR, FILING

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

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44 2751 3 BINDERY O
44 2751 3 CAMERA MAN O ABIL LEARN,
44 2751 3 PASTEUP/STRIPPER O PRIOR OFFSET PRESS EXPER, GOOD EYE, ARTISTIC
44 2751 3 TYPESETTER O TYPING, APT, WORK ETHIC,
288 2752 2 APPRENTICE STRIPPER
79 2752 2 PRINT OPER TRAINEE X MEASUREMENT ABIL, MECHANICAL KNOWL, PENMANSHI
288 2752 2 SHIPPING ASSIST
79 2752 2 TYPESETTER X TYPING, PENMANSHIP
82 2752 3 CLERICAL O TYPING, OFFICE MACHINES
82 2752 3 LABORER O
82 2752 3 PRODUCTION WORKER O INDUSTRIAL ARTS
311 2752 4 BINDERY O PERSONALITY, TRAINABLE
311 2752 4 PRESS OPER O PERSONALITY, TRAINABLE
311 2752 4 SALES CLERK O PERSONALITY, TRAINABLE
279 2752 5 IMAGE ASSEMBLER O BASIC PRINTING SKILLS, KNOWL FILMS/NEGATIVES/ETC
279 2752 5 PRESS OPER O BASIC PRINTING SKILLS, ABIL OPER SMALL PRESS
206 2752 6 BINDERY O MACHINE APT
206 2752 6 LABORER O
206 2752 6 SHIPPING
206 2752 6 WEB PRESS O MACHINE APT
487 2761 5 CLERICAL O TYPING, ACCOUNTING, QUICK LEARNERS
295 2789 3 BOOK PREPARATION X ATTENT DETAIL, SPELLING, GRAMMAR
295 2789 3 CASING-IN X METICULOUSNESS
295 2789 3 COVER MAKING X ATTENT DETAIL, ORGANIZED WORK FLOW
295 2789 3 TRIMMER X ATTENT DETAIL
295 2789 3 TYPESETTER /STAMPING X GRAMMAR, SPELLING

CHEMICALS AND ALLIED PRODUCTS

71 2851 4 LABORER O DESIRE TO WORK, COMMON SENSE
560 2851 5 FILE CLERK O
560 2851 5 WAREHOUSE O

RUBBER AND MISC. PLASTIC PRODUCTS

577 3079 5 CLERICAL O MATH, BOOKKEEP
424 3079 5 CLERICAL O TYPING 45, FILING, CALCULATOR
424 3079 5 INSPECTOR/PACKER X GOOD EYE/HAND COOR, COMMUN VERB/WRIT
577 3079 5 MACHINIST TRAINEE O MECHANICAL APT, MATH, WOOD WORKING
577 3079 5 PARTS PICKER O MATH, MECHANICAL APT

MISCELANEOUS MANUFACTURING INDUSTRIES

64 3911 2 BENCH WORKER X JEWELERS SKILLS, GEOMETRY, MATH
64 3911 2 CLERICAL X TYPING, SPELLING, GRAMMAR, DICTATION, MATH
93 3952 3 ASSEMBLY/ENGRAVING X EYE/HAND COORD
93 3952 3 SIGN MAKERS X COMMUN, TELEPHONE, COLOR COOR, LAYOUT TECHNIQUE, EYE
265 3953 2 ASSEMBLY, HAND STAMP O EXPER WORKING W HANDS, SPELL, ABIL MATCH OR

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

TRANSPORTATION/UTILITIES

LOCAL AND INTERURBAN PASSENGER TRANSIT

527 4119 3 BUS DRIVER O
527 4119 3 CLERICAL O MATH, TYPING
536 4151 3 DRIVER/SCHOOL BUS O GOOD DRIVING RECORD, COMMUN W YOUNGSTERS
536 4151 3 JANITOR O ACCEPT WORK DEMANDS, RESPONSIBLE
162 4151 5 DRIVER/SCHOOL BUS O

TRUCKING AND WAREHOUSING

19 4210 1 DELIVERY O ABIL DRIVE AUTO
75 4210 2 DRIVER X WORK ETHIC, PUNCTUALITY, RESPONSIBILITY, GOOD DRIVING REC
643 4210 2 DRIVER, TRUCK O DRIVERS LICENSE
427 4210 2 DRIVER, TRUCK O GOOD DRIVING RECORD, MECHANICAL ABIL
127 4210 2 HOUSEKEEP X WORK ETHIC, FINSTRUCT, MEMORY, COMMUN
646 4210 3 CLERICAL O
646 4210 3 DRIVER, TRUCK O
511 4210 3 LABORER O
646 4210 3 SALES CLERK O
419 4210 4 CLERICAL O FILING, TYPING
149 4210 4 DRIVER, TRUCK X CHAUFFEUR'S LICENSE, ABIL THINK, COMMON SENSE, SPELL
393 4225 3 FORKLIFT DRIVER X MATH, SPELLING, MECHANICS
393 4225 3 LABORER X MATH, CARING, RESPONSIBLLE

U.S. POSTAL SERVICE

109 4311 6 LETTER CARRIER O
109 4311 6 LETTER SORTING MACHINE OPER O
109 4311 6 MAIL CLERK O

TRANSPORTATION BY AIR

140 4511 3 APPRENTICE MECHANIC X READING
606 4511 3 CLERICAL O TYPING, SHORTHAND, CALCULATOR, CRT
606 4511 3 PASSENGER SERVICE AGENT O TYPING
606 4511 3 RESERVATIONS AGENT O TYPING

TRANSPORTATION SERVICES

172 4722 3 TRAVEL AGENT O TELEPHONE, SALES, COMPUTER, CRT
170 4722 4 TRAVEL AGENT X COMMUN, TYPING 50

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

COMMUNICATION

73 4811 0 CLERICAL O TYPING, CRT, SHORTHAND
600 4811 0 CLERICAL O TYPING, CRT, SHORTHAND
600 4811 0 JANITOR O MAINTENANCE
73 4811 0 JANITOR O MAINTENANCE EXPER
600 4811 0 LINEWORK O
73 4811 0 LINEWORKER O
662 4832 2 ADMIN O TYPING, FILING, ORGANIZING PROJECTS, TELEPHONE
612 4899 2 PERMIT CLERK O LISTENING, SPEAKING, ATTENDANCE

ELECTRIC, GAS, AND SANITARY SERVICES

580 4931 0 CLERICAL X ACCOMMODATING, FRIENDLY, FDIRECT
580 4931 0 METER READING X NUMBERS, OUTSIDE WORK ALL WEATHER
108 4931 6 CLERICAL O FILING, TYPING, SORTING
645 4931 6 CLERICAL X TYPING, FILING, WORK ETHIC, ATTENDANCE,
645 4931 6 LABORER O WORK ETHIC, ATTENDANCE
645 4931 6 LABORER O WORK ETHIC, ATTENDANCE
108 4931 6 LABORER X MATH, SHOP SKILLS
539 4953 1 CLERICAL O GEN KNOWL, HUMAN REL
539 4953 1 DRIVER O GOOD DRIVING RECORD
539 4953 1 LABORER O WILLINGNESS TO WORK
539 4953 1 MECHANIC O GEN KNOWL EXPER
464 4953 2 LABOROR O JANITORIAL, TRUCK WASHING, GREASING
464 4953 2 RECEPTIONIST O TYPING 60, BOOKKEEP, TELEPHONE

WHOLESALE TRADE

WHOLESALE TRADE -- DURABLE GOODS

396 5013 2 CLERICAL O EDP KEYBOARD
396 5013 2 DELIVERY O EDP KEYBOARD
396 5013 2 WAREHOUSE O EDP KEYBOARD
194 5013 3 ORDER ENTRY COMPUTER/KEYBOARD ABIL
456 5013 3 PARTS CLERK O
456 5013 3 SERVICE TECH O ELECTRICAL ABIL, CARBURETOR ABIL
246 5013 4 DELIVERY X GOOD DRIVING RECORD, GOOD COMMUN, RESPONSIBLE
246 5013 4 PAINT MIXER X ACCURATE, NEAT
148 5023 4 ACCOUNT CLERK X KNOW BASIC ACCOUNTING
148 5023 4 SECRETARY X TYPING, SPELLING, GOOD MEMORY, NEATNESS
148 5023 4 WAREHOUSE O GOOD DRIVING, ACCURACY
425 5039 3 DRAFTSPERSON O
425 5039 3 DRIVER, TRUCK O
425 5039 3 GO-FOR O
425 5039 3 LABORER O
267 5041 3 SALES CLERK O ABIL READ, ABIL FILL ORDERS, FDIRECT, MATH
267 5041 3 SHIPPING/RECEIVING O ABIL READ, ABIL FILL ORDERS, FDIRECT, MATH
55 5063 3 CLERICAL O BASIC COMMUN, PENMANSHIP, GRAMMAR, SPELLING, TELEPHONE
518 5065 4 LABORER O STRONG BACKS, DESIRE TO WORK

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

518 5065 4 SECRETARY O
518 5065 4 SHIPPING/RECEIVING X LOGIC, EFFICIENCY, MATH
410 5072 3 WAREHOUSE O LIFT AND CARRY HEAVY OBJECTS
417 5072 4 CLERICAL O TYPING, ACCURACY, NEATNESS, ATTIT, RELIABILITY, WORK W
417 5072 4 WAREHOUSE O ACCURACY, NEATNESS, ATTIT, RELIABILITY, WORK W OTHERS
256 5074 2 DELIVERY O DRIVERS LICENSE, MECHANICAL APT
102 5074 4 DRIVER, TRUCK O
102 5074 4 SALES CLERK O
 39 5074 5 ACCOUNT CLERK X MATH, BOOKKEEP
 39 5074 5 FOUNDRY X METALS, MATH,
 39 5074 5 MACHINIST TRAINEE X MATH
 39 5074 5 WELDER O METALS
227 5081 2 DELIVERY O
 72 5083 5 APPRENTICE MECHANIC X READ, WRIT, PENMANSHIP
 72 5083 5 CLERICAL X WRIT SKILLS
 72 5083 5 SALES CLERK X MATH
 72 5083 5 WAREHOUSE X READ, WRIT
226 5084 2 CLERICAL O TYPING, FILING, SHORTHAND, BUSINESS MACHINES ABIL
 21 5084 4 CLERICAL O TYPING, FILING, SPELLING, BOOKKEEP
 21 5084 4 TECHNICAL LABORER O HYDRAULIC SYSTEM SERVICE, ELECTRIC VEHICLE CON
241 5084 4 WAREHOUSE O READING, COMMUN
611 5085 4 CYLINDER FILLER O
611 5085 4 DRIVER, TRUCK O
611 5085 4 WAREHOUSE O
540 5086 4 ORDER PICKER/PACKER O
540 5086 4 SHIPPING O
540 5086 4 WAREHOUSE O
637 5087 2 SERVICE TECH O MECHANICAL APT

WHOLESALE TRADE -- NON-DURABLE GOODS

628 5112 5 CLERICAL O GOOD GRADES, GOOD PERSONAL APPEARANCE
628 5112 5 DELIVERY O PLEASANT ATTIT, GOOD PERSONAL APPEARANCE
 11 5113 5 CLERICAL X COMMUN VERB/WRIT
 11 5113 5 DATA ENTRY X COMMUN VERB/WRIT, KNOWL EDP
 11 5113 5 RECEPTION X COMMUN VERB/WRIT
 11 5113 5 SECREATRY X COMM VERB/WRIT
 11 5113 5 WAREHOUSE X COMMUN VERB/WRIT
262 5141 4 CLERICAL O TYPING, READING, DATA ENTRY
262 5141 4 WAREHOUSE O READING, SPATIAL RELATIONSHIPS
200 5141 5 MECHANIC ASSIST X MECHANICAL TRAINING
200 5141 5 WAREHOUSE O
556 5144 3 DRIVER,TRUCK O
240 5147 3 DRIVER O GOOD DRIVER RECORD, KNOWL CITY
240 5147 3 WRAPPER O
573 5147 5 DATA ENTRY X ACCURACY
573 5147 5 ORDER PICKER X DIFFERENTIATE BETWEEN SIMILAR PRODUCTS
814 5147 6 BOOKKEEP O ACCOUNTING, TYPING, WORD PROCESS
814 5147 6 CLERICAL O TYPING, FILING
814 5147 6 LABORER O PHYSICAL/MANUAL DEXTERITY
814 5147 6 MAIL CLERK O

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

814 5147 6 SECRETARY O SHORTHAND, TYPING, FILING
814 5147 6 WORD PROCESS O TYPING
507 5181 4 CLERICAL O TYPING
507 5181 4 WAREHOUSE O
494 5181 4 WAREHOUSE X
438 5182 5 CLERICAL O CLERICAL SKILLS
438 5182 5 DRIVER O APPEARANCE, RELIABILITY, DRIVING RECORD
438 5182 5 SALES O AGGRESSIVENESS, DESIRE, TRAINING, APPEARANCE
489 5191 4 CLERICAL O CALCULATOR, COMPUTER
489 5191 4 DRIVER, TRUCK O
489 5191 4 ROUTE SALES O
489 5191 4 WAREHOUSE O
440 5191 5 CLERICAL X TYPING, CRT
440 5191 5 STOCK CLERK O
440 5191 5 WAREHOUSE O ABIL DRIVE
564 5199 5 ASSEMBLY O MATH
564 5199 5 CLERICAL O TYPING, FILING, OFFICE MACHINES

RETAIL TRADE

BUILDING MATERIALS AND GARDEN SUPPLIES

525 5211 0 LABORER O EXPER
43 5211 2 DRIVER, TRUCK O READ, WRIT, MATH, FDIRECT
549 5211 3 DRIVER, TRUCK O
549 5211 3 LABORER O
543 5211 4 DRIVER, TRUCK O
543 5211 4 LABORER, YARD O
559 5231 5 SALES CLERK X MATH, COMMUN
510 5251 2 SALES CLERK O
160 5251 4 SALES CLERK O
160 5251 4 STOCK CLERK O

GENERAL MERCHANDISE STORES

640 5311 6 AUTO INSTALLERS X KNOWL MANUALS, FINSTUCT, SAFETY
640 5311 6 CUSTOMER SERVICE X HANDLE COMPLAINTS W/O ESTABLISHED LIABILITY FOR
640 5311 6 LABORER O READ ORDERS
640 5311 6 MECHANIC X DIAGNOSIS PROBLEMS, EXPLAIN PROBLEMS, FIND ECONOMICAL S
640 5311 6 SALES CLERK O CUSTOMER RELAT, MANNERS, KNOWL PRODUCT LINE, KNOWL T
452 5331 2 SALES CLERK X OPER CASH REGISTER, HANDLE MONEY
452 5331 2 STOCK CLERK O

FOOD STORES

466 5411 0 BAGGERS O HUSTLE, COURTESY, COMMON SENSE, MATH
30 5411 1 SALES CLERK O ABIL OPER CASH REGISTER
616 5411 2 CASHIER X MATH, ABIL COMMUN W CUSTOMERS
616 5411 2 DRIVEWAY SALES X MATH, ABIL COMMUN W CUSTOMERS

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

176 5411 3 SALES CLERK O COMMON SENSE, WILLING TO WORK, MATH, RELIABILITY
595 5411 4 BARTENDER O
45 5411 4 CHECKER O
595 5411 4 COOK O
472 5411 4 MEAT DEPT CLERK O
472 5411 4 SALES CLERK O
45 5411 4 SALES CLERK O
485 5411 4 SALES CLERK X MATH, COMMON SENSE, HONESTY
45 5411 4 STOCK CLERK O
472 5411 4 STOCK CLERK/CARRY OUT O
595 5411 4 WAITPERSON O
513 5462 3 BAKER HELPER O
513 5462 3 DISHWASHER O
513 5462 3 SALES CLERK O
155 5462 4 BAKER HELPER X ODD HOURS, BENCH WORK
155 5462 4 CAKE DECORATING X
155 5462 4 CLEAN UP O
155 5462 4 DRIVER O
155 5462 4 SALES CLERK X
185 5499 5 BAKER O PRIOR EXPER
185 5499 5 COOK O PRIOR EXPER
185 5499 5 DISHWASHER O
185 5499 5 SALES CLERK O PRIOR EXPER
185 5499 5 WAITPERSON O PRIOR EXPER

AUTOMOTIVE DEALERS AND SERVICE STATIONS

669 5511 4 AUTO CLEANER X EYE FOR DETAIL
535 5511 4 CLERICAL X TYPING, BOOKKEEP
470 5511 4 CLERICAL X TYPING, SECRETARIAL, FILING, ACCOUNTING, BOOKKEEP
431 5511 4 JANITOR O
535 5511 4 MAINTENANCE O
669 5511 4 PARTS CLERK X ABIL LEARN USE OF PARTS CATALOGS
431 5511 4 SERVICE ASSIST O
253 5511 5 AUTO CLEANER O
633 5511 5 CAR JOCKEY O GOOD DRIVING RECORD, NEAT PERSONALITY AND APPEARANCE
198 5511 5 CLERICAL X GOOD TYPING, TELEPHONE, GENERAL OFFICE
633 5511 5 DRIVER, TRUCK O GOOD DRIVING RECORD, NEAT APPEARNACE, PLEASING PER
633 5511 5 LOT ATTENDANT O GOOD PENMANSHIP, GOOD DRIVING RECORD, INITIATIVE
633 5511 5 RECEPTIONIST O GOOD VOICE, PERSONALITY, TYPING,
198 5511 5 SHOP ASSIST O
429 5531 3 SALES CLERK
546 5541 1 DRIVEWAY SALES O
648 5541 1 DRIVEWAY SALES X MECHANICAL ABIL, MATH, HANDLE MONEY
255 5541 2 DRIVEWAY SALES X COMMUN, HANDLE MONEY, OIL CHANGES, DRIVERS LICENS
255 5541 2 MECHANIC O TUNEUPS, OIL CHANGES, BRAKE JOBS, DRIVERS LICENSE
235 5541 3 APPRENTICE MECHANIC X MECHANICAL UNDERSTANDING
461 5541 3 DRIVEWAY SALES X ADD, SUBTRACT
434 5541 3 DRIVEWAY SALES X COMMUN, LIMITED KNOWL AUTO, SNOW-SHOVEL
235 5541 3 DRIVEWAY SALES X HANDLE MONEY, WRITE, COMMUN
434 5541 3 LABORER X COMMUN, LIMITED KNOWL AUTO, SNOW-SHOVEL

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

447 5541 4 CARWASH ATTENDANT X MEETING PEOPLE, COMMON SENSE, AMBITION
447 5541 4 CASHIER/BOOKKEEP X MEETING PEOPLE, TELEPHONE, LEGIBLE HANDWRITING,
447 5541 4 SALES CLERK X COMMON SENSE, AMBITION, GOOD SPELLING/HANDWRITING
58 5551 0 SALES O KNOWL SAILING, SAILBOATS, ABIL WRIT SALES, CASH REGISTER
538 5551 3 LABORER O
257 5571 0 MECHANIC X MOTORCYCLE SETUP UNDERSTANDING
257 5571 0 SALES CLERK X HANDLE MONEY, MOTORCYCLE/MECHANICAL UNDERSTANDING
523 5571 3 MOTORCYCLE SETUP X KNOWL TOOLS, MECHANICAL SKILLS

APPAREL AND ACCESSORY STORES

15 5611 6 SALES CLERK O SALES EXPER
493 5621 0 SALES CLERK O
493 5621 0 STOCK CLERK O
135 5621 1 SALES CLERK O OPER CASH REGISTER, OPER ADDING MACHINE
98 5621 3 BOOKKEEP O
98 5621 3 SALES CLERK O GOOD PERSONALITY, GOOD APPEARANCE, GOOD GRADES
98 5621 3 STOCK CLERK O
221 5631 1 SALES CLERK O MATURITY, SALES EXPER, WILLING TO WORK
446 5641 3 SALES CLERK X COMMON SENSE, WILLING TO LEARN, WILLING TO WORK
446 5641 3 WAREHOUSE/DELIVERY X COMMON SENSE, WILLING TO LEARN, WILLING TO WO
9 5651 2 MANAGER JR ASSIST X PRIOR SUPERVISORY EXPER
9 5651 2 SALES CLERK X PRIOR RETAIL EXPER
225 5661 2 SALES CLERK X MATH
1 5661 3 SALES CLERK
599 5699 2 SALES CLERK O MATH, TAKE INVENTORY
533 5699 3 SALES CLERK O COMMUN, KNOWL ATHLETICS AND ATHLETIC SHOES

FURNITURE AND HOME FURNISHINGS STORES

395 5712 0 WAREHOUSE O DILIGENCE, LEARN JOB, NEATNESS, CARE ABOUT JOB, COMMUN
231 5712 2 DELIVERY X CONCERN FOR CUSTOMERS
231 5712 2 WAREHOUSE X ORGANIZATION, WORK W/OUT SUPERVISION
138 5713 3 WAREHOUSE X PERSONALITY, ALERTNESS
309 5713 4 DRIVER X READING, WRITING, MATH
309 5713 4 RECEPTIONIST X TYPING, FILING, BOOKKEEP
394 5713 4 WAREHOUSE O GOOD DRIVING RECORD, COLOR VISION, ABIL LIFT HEAVY OBJ
309 5713 4 WAREHOUSE X READING, WRITING, MATH
307 5719 3 BAKER O
307 5719 3 SALES CLERK O
78 5732 2 DELIVERY O FINSTRUCT, READ
469 5732 3 SALES CLERK O CONSUMER RELAT, TECHNICAL UNDERSTANDING
469 5732 3 SERVICE TECH O BASIC ELECTRONICS THEORY, MECHANICAL ABIL
101 5733 4 CLERICAL X TYPING, SPELLING
101 5733 4 RECEPTIONIST X SPEAK ABIL, SPELL, MUSIC BACKGROUND,
101 5733 4 SALES CLERK O MATH, MUSIC BACKGROUND

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

EATING AND DRINKING PLACES

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  7 5810 0 FOOD SERVICE WORKERS O DEPENDABILITY, FDIRECT
625 5810 2 BARTENDER O
388 5810 2 BARTENDER O MATH
  6 5810 2 BARTENDER X VERB, COMMUN
151 5810 2 CASHIER X READ, MATH
  6 5810 2 COOK X COOK EXPER
151 5810 2 COOK X READ, MANUAL DEXTERITY
151 5810 2 JANITOR X READ
296 5810 2 LABORER O
296 5810 2 MANAGER X KNOWL RESTAURANT ACTIVITY, HIRING, FIRING, TEACH OTHERS
625 5810 2 SALAD COOK O FOOD PREPARATION, GOOD USE OF EQUIP
388 5810 2 WAITPERSON O MATH
151 5810 2 WAITPERSON X MATH, READ
247 5810 3 ASSIST COOK O
622 5810 3 BUSSING O
247 5810 3 BUSSING O
622 5810 3 COOK O
574 5810 3 COOK O
673 5810 3 COOK X
673 5810 3 HOUSEKEEP X
247 5810 3 JANITOR O
 66 5810 3 MANAGER ASSIST X LEADERSHIP, COMMON SENSE, ORGANIZATION
 66 5810 3 MANAGER X LEADERSHIP, COMMON SENSE, ORGANIZATION
649 5810 3 SALES CLERK O READ, WRITE, SPEAK, ENGLISH, COUNT
 66 5810 3 SALES CLERK X SENSE OF SELF WORTH, CONFIDENCE
574 5810 3 WAITPERSON O
801 5810 3 WAITPERSON O
247 5810 3 WAITPERSON O
673 5810 3 WAITPERSON X
677 5810 4 BARTENDER O
156 5810 4 BARTENDER O
516 5810 4 BUSSING O
156 5810 4 BUSSING O
277 5810 4 CASHIER O MATH
156 5810 4 COCKTAIL WAITRESS O
677 5810 4 COOK O
277 5810 4 COOK O GOOD ATTIT, WILLINGNESS TO LEARN
156 5810 4 COOKS HELPER O
156 5810 4 DISHWASHER O
310 5810 4 DISHWASHER O
312 5810 4 DISHWASHER O
666 5810 4 DISHWASHER O
677 5810 4 DISHWASHER O
516 5810 4 DISHWASHER O
277 5810 4 DISHWASHER O GOOD ATTIT, WILLINGNESS TO LEARN
277 5810 4 JANITOR O GOOD ATTIT, WILLINGNESS TO LEARN
516 5810 4 KITCHEN PREP O
666 5810 4 LINE WORKER O
516 5810 4 MAINTENANCE O
666 5810 4 PREP CREW O
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ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

310 5810 4 SALAD COOK O
312 5810 4 SALAD COCK O
677 5810 4 SALAD COOK O
156 5810 4 SALAD COOK O
677 5810 4 WAITPERSON O
277 5810 4 WAITPERSON O MATH
666 5810 4 WASTE O
14 5810 5 CASHIER X HANDLE MONEY
14 5810 5 COOK X READ
482 5810 5 DELIVERY O DRIVERS LICENSE, CLEAN, HANDLE MONEY
14 5810 5 FOOD SERVICE X COMMUN, HUMAN RELAT, SPEAKING, PROBLEM SOLVING
14 5810 5 LOGISTIC O
482 5810 5 SALES CLERK O

MISCELIANEOUS RETAIL

289 5912 1 DELIVERY X DRIVERS LICENSE, PEOPLE SKILLS, READ MAPS
289 5912 1 SALES CLERK X PEOPLE, HANDLE MONEY, DO INSURANCE FORM WORK
520 5912 2 CLERICAL O
520 5912 2 DELIVERY O DRIVERS LICENSE, AVERAGE INTELLIGENCE
520 5912 2 SALES CLERK O
152 5912 3 SALES CLERK X MATH, WRITING, UNDERSTANDING
216 5921 1 SALES CLERK O
69 5921 2 SALES CLERK O EXPER W CASH REGISTER, CALCULATOR, GOOD ATTIT W PUBL
428 5941 2 SALES TRAINEE O
402 5941 4 MECHANIC BICYCLE X OVERHAUL MULTI-SPEED HUBS, WHEELS, KNOWL PRODUC
562 5941 4 SALES CLERK O
402 5941 4 SALES CLERK O ADD & SUBTRACT
562 5941 4 SERVICE TECH O MECHANICAL ABIL
660 5942 3 CLERICAL X TYPING, CALCULATOR, RESPONSIBLE
660 5942 3 SALES CLERK O MATH, INVENTORY, GOOD PERSONALITY, HELP CUSTOMER
2 5943 2 DELIVERY X READING
2 5943 2 STOCK CLERK X READING, MATH
2 5943 2 TELEPHONE SALES X READING MATH, COMMUN
601 5946 2 SALES CLERK O
800 5947 0 SALES CLERK O SELLING, ACCOUNTING
415 5947 2 SALES CLERK O HANDLE MONEY
286 5947 2 SALES CLERK X CASH REGISTER, INVENTORY CONTROL, INITIATE HELP TO C
418 5947 3 SALES CLERK O CASHIERING, COOD PERSONALITY, OUTGOING, INDUSTRIOUS
139 5947 3 SALES CLERK X SALES TECHNIQUES
418 5947 3 STOCK CLERK O
621 5999 0 SALES CLERK O
621 5999 0 STOCK CLERK O
430 5999 2 SALES CLERK O
141 5999 2 SALES CLERK X MATH

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

FINANCE, INSURANCE, AND REAL ESTATE

BANKING

178 6022 4 BOOKKEEP X CALCULATOR, TYPING, PEOPLE
178 6022 4 MAINTENANCE O
178 6022 4 RECEPTIONIST X CALCULATOR, TYPING, PEOPLE
178 6022 4 TELLER X CALCULATOR, TYPING, PEOPLE
4 6022 5 CLERICAL O TYPING, ACCURACY, REMEMBER DETAILS
4 6022 5 PROOF DEPT. O TEN KEY ADDING MACHINE, TYPING, MATH, DEXTERITY
4 6022 5 TELLER O CALCULATOR, TYPING, COMMUN, HANDLING MONEY
248 6023 4 ACCOUNT CLERK O MATH, COMMUN VERB/WRIT
437 6023 4 BOOKKEEP O
524 6023 4 BOOKKEEP O MATH, TYPING, CLERICAL, ACCOUNTING
436 6023 4 BOOKKEEP X CLEAR THINKER, BUSINESS MACHINES, TYPING, COMMUN
248 6023 4 MAIL CLERK O
38 6023 4 RECEPTIONIST O GRAMMAR
31 6023 4 SECRETARY X SHORTHAND, TYPING
248 6023 4 TELLER O COMMUN, MATH, PROBLEM SOLVING
38 6023 4 TELLER O MATH, BOOKKEEP
31 6023 4 TELLER O MATH, COMMUN
524 6023 4 TELLER O MATH, TYPING, CLERICAL, ACCOUNTING
161 6023 5 BOOKKEEP O
657 6023 5 BOOKKEEP O CALCULATOR, BASIC ACCOUNTING
161 6023 5 CLERICAL O
161 6023 5 PROOF MACHINE OPER O DEXTERITY
161 6023 5 TELLER O DEXTERITY, HANDLE MONEY
657 6023 5 TELLER O MACHINE DEXTERITY, CALCULATOR, HANDLE MONEY
63 6025 2 TELLER X TYPING, BUSINESS MACHINES, BOOKKEEP

CREDIT AGENCIES OTHER THAN BANKS

205 6123 6 CLERICAL X TYPING, FILING
205 6123 6 TELLER O HANDLE MONEY, ABIL TO MEET PEOPLE
584 6131 3 CLERICAL O TYPING, OFFICE MACHINES, OFFICE PROCEDURES
465 6142 4 LOAN CLERK X TYPING, SPELLING, CALCULATOR
465 6142 4 TELLER X CALCULATOR, TYPING, GOOD PUBLIC RELAT
642 6143 1 TELLER O TYPING, CALCULATOR, MATH
214 6143 2 TELLER X TYPING, TELEPHONE, HANDLE CASH
416 6143 3 ACCOUNT CLERK O CRT, CALCULATOR, BASIC ACCOUNTING, DATA PROCESS
416 6143 3 CLERICAL O TYPING, CRT, CALCULATOR, FILING, TELEPHONE
575 6143 3 LOAN CLERK X TYPING
416 6143 3 RECEPTIONIST O TELEPHONE, CRT, TYPING, CALCULATOR
416 6143 3 TELLER O CRT TYPING, CALCULATOR
575 6143 3 TELLER X NUMBERS ACCURACY, PEOPLE ORIENT
423 6143 4 LOAN CLERK O CRT
414 6143 4 LOAN CLERK X TYPING 40, BOOKKEEP
414 6143 4 MEMBER SERVICES CLERK X BOOKKEEP, CALCULATOR, TYPING 40

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414 6143 4 PAYROLL CLERK X CALCULATOR, BOOKKEEP
423 6143 4 RECEPTIONIST O CRT
414 6143 4 TELEPHONE OPER X TYPING 40, CALCULATOR, BOOKEEP
423 6143 4 TELLER O CALCULATOR, CRT
414 6143 4 TELLER X SHARE DRAFT PROCESS, BOOKKEEP, TYPING 40
414 6143 4 TELLER X TYPING 40, CALCULATOR, HANDLE MONEY, BOOKKEEP
578 6143 5 CLERICAL X TYPING, SPELLING, CRT
578 6143 5 RECEPTIONIST X CRT, COMMUN
578 6143 5 TELLER X CRT, HANDLE MONEY
104 6162 5 DATA ENTRY O TYPING, SPELLING
104 6162 5 LIBRARY ASSIST O TYPING, FILING, SPELLING, GRAMMAR
271 6162 5 LOAN PROCESS X TYPING, SHORTHAND, DICTAPHONE, MATH
104 6162 5 RECEPTIONIST O TYPING, SPELLING, GRAMMAR
271 6162 5 RECEPTIONIST X TYPING, COMMUN
104 6162 5 SECRETARY O TYPING, FILING, OFFICE MACHINES, SPELLING, GRAMMAR
271 6162 5 SECRETARY X TYPING, SHORTHAND, DICTAPHONE

INSURANCE CARRIERS

636 6311 4 BOOKKEEP O
636 6311 4 CLERICAL O
636 6311 4 SECRETARY O
106 6311 5 BOOKKEEP X BOOKKEEP, MATH
106 6311 5 CLERICAL X CRT, ELECTRONIC FILING, TYPING
656 6311 5 CLERICAL X STENOGRAPHIC, SHORTHAND
656 6311 5 SALES CLERK X PEOPLE
106 6311 5 STENOGRAPHERS X TYPING 50, ENGLISH, GRAMMAR, SPELLING
189 6311 6 ACCOUNT CLERK O MATH, ACCOUNTING
189 6311 6 CLAIMS ASSIST X FILING,
189 6311 6 CLERICAL X ALPHABETIZE, ORDER NUMERICALLY
189 6311 6 MAIL CLERK X ALPHABETIZE, ORDER NUMERICALLY, LIFTING ABIL
189 6311 6 WORD PROCESS X TYPING 55, KNOWL WORD PROCESS EQUIP
17 6331 0 CLERICAL O
17 6331 0 CLERICAL O TYPE 40, OFFICE MACHINES
17 6331 0 RECEPTIONIST O TELEPHONE
17 6331 0 RECORDS CLERK O
18 6331 2 CLERICAL O TYPING, SPELLING, DICTATION, TRANSCRIPTION ABIL
567 6331 4 FILE CLERK O FILING
567 6331 4 SECRETARY O TYPING, DICTAPHONE
184 6331 5 CLERICAL O TYPING, CALCULATOR
187 6331 6 CLERICAL X SPELLING, PENMANSHIP, TYPING 45
635 6331 6 CLERICAL X TYPING 45, SPELLING, GRAMMAR
635 6331 6 CRT OPER O PREVIOUS TYPING, CRT EXPER
635 6331 6 MAIL CLERK O ABIL LIFT HEAVY LOADS
635 6331 6 RATE/CODER O APT MATH
563 6361 6 CLERICAL X TELPEHONE, TYPING, GRAMMAR
563 6361 6 CRT OPER X ATTENT SPAN
563 6361 6 FILE CLERK X NUMBER SEQUENCE, GOOD ATTENDANCE
563 6361 6 MICROFILM CLERK X SPEED MOVING PAPERS, GOOD ATTENDANCE
563 6361 6 RECEPTIONIST X TELEPHONE, TYPING, GRAMMAR
563 6361 6 WORD PROCESS X GRAMMAR, TYPING

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INSURANCE AGENTS, BROKERS, AND SERVICE

541 6411 1 SECRETARY O
627 6411 2 INSURANCE SALES X COMMUN, SALES TECHNIQUES, TIME MANAGEMENT, INDUS
167 6411 2 SECRETARY O TYPING, PUNCTUATION, SPELLING, TELEPHONE
627 6411 2 SECRETARY X TYPING, DICTAPHONE, COMPUTER
471 6411 3 CLERICAL O COMPUTER, CRT, KNOWL INSURANCE PRODUCT
197 6411 5 CLERICAL O TYPING, CALCULATOR, ALPHABETICAL ABIL, DEXTERITY
197 6411 5 MAIL CLERK O DEXTERITY, ALPHABETICAL ABIL, MECHANICAL ABIL

REAL ESTATE

263 6510 1 MAINTENANCE O
193 6510 3 CLERICAL O
193 6510 3 LABORER O
583 6531 1 LAWN WORK X RESPONSIBILITY, MOTIVATION
586 6531 2 ADMIN X TYPING, BOOKKEEP, RECEPTIONIST SKILLS
450 6531 3 MAINTENANCE O RELIABLE, PROMPT, MECHANICAL APT KNOWL MOWING, PRUNI
623 6531 3 RECEPTIONIST O ENGLISH, TYPING
623 6531 3 SECRETARY O TYPING, ENGLISH
634 6531 4 CLERICAL X TYPING, COMMUN, SELF-STARTING, PLAN AHEAD
634 6531 4 MAINTENANCE X KNOWL TOOLS ETC, COMMUN, RECORD KEEP
232 6531 4 RECEPTIONIST O

HOLDING AND OTHER INVESTMENT OFFICES

89 6711 4 DATA ENTRY O TYPING, MATH
89 6711 4 RECEPTION O TYPING

SERVICES

HOTELS AND OTHER LODGING PLACES

475 7011 0 BANQUET SETUP O
475 7011 0 DISHWASHER O
475 7011 0 HOUSEKEEP O
56 7011 1 HOUSEKEEP X READ, WRIT, DEXTERITY
816 7011 2 BARTENDER O
604 7011 2 BARTENDER O BARTENDER/ALCOHOL AWARENESS TRAINING
604 7011 2 CLERICAL O
816 7011 2 DESK CLERK O READING, WRITING, MATH, ATTENDANCE
816 7011 2 HOUSEKEEP X LISTENING, FINSTRU
825 7011 4 ACCOUNT CLERK X BOOKKEEP, CALCULATOR
825 7011 4 CLERICAL X SPELLING, PUNCTUATION
16 7011 4 DESK CLERK O NUMERICAL, SPEECH, COMMUN
406 7011 4 DESK CLERK O ORGANIZATIONAL RELAT, HUMAN RELAT
406 7011 4 HOUSEKEEP O HUMAN RELAT
16 7011 4 HOUSKEEP O
16 7011 4 JANITOR O

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406 7011 4 KITCHEN ATTENDANTS O HUMAN RELAT
16 7011 4 PORTER O NUMERICAL, SPEECH, COMMUN
825 7011 4 RECEPTIONIST X PEOPLE SKILLS
406 7011 4 WAITPERSON O HUMAN RELAT

PERSONAL SERVICES

519 7210 2 PRESSING PANTS O
484 7210 2 SALES CLERK
519 7210 2 SALES O
537 7210 5 LAUNDRY WORKER O REPETITION, FAST PACED, PHYSICAL WORK
459 7231 1 BEAUTICIAN X BEAUTY SCHOOL GRAD
462 7231 1 HAIRDRESSER O MANUAL DEXTERITY, PERSONALITY
483 7231 3 HAIRDRESSER X MARKETING
607 7299 1 AEROBICS INSTRUCTOR O CPR/FIRST AID CERTIFICATES, ANATOMY & PHYSIO
607 7299 1 CRT OPER X TYPING 50, FILING, LOGICAL FORM DESIGN

BUSINESS SERVICES

190 7300 3 DATA ENTRY O KNOWL KEYPUNCH MACHINE, KNOWL DATA TRANSMISSION
190 7300 3 PAYROLL CLERK X MATH
190 7300 3 VOUCHER EXAMINER O MATH
803 7301 3 CLERICAL X TYPING 65, OFFICE MACHINE, RECORD KEEP, FILING, MATH, C
803 7301 3 SECRETARY X TYPING 65, OFFICE MACHINES, RECORD KEEP, FILING, MATH,
182 7311 4 JANITOR X
182 7311 4 RECEPTIONIST X TELEPHONE
182 7311 4 WORD PROCESS X TYPING 80
92 7321 3 PUBLIC RECORD VERIFIER X LEGIBLE WRITER, GOOD MANNERS IN PUBLIC
92 7321 3 VERIFIER/PROCESS X TYPING, SPELL, LEGIBLE WRITER, TELEPHONE
117 7331 2 BINDERY/SHIPPING O MECHANICAL APT
661 7332 2 COPY MACHINE OPER O MATH
661 7332 2 SALES CLERK X HANDLE MONEY, MATH
273 7332 4 PRESS OPER O KNOWL SMALL PRESS OPER
291 7333 2 LABORER X WILLINGNESS TO WORK, PUNCTUAL
124 7339 0 CLERICAL X TYPING, SPELLING, GRAMMAR
164 7339 1 CLERICAL O TYPING, VOCABULARY, PROOFREADING, GRAPHIC ARTS, SPELLIN
654 7349 2 LABORER O
401 7349 2 LABORER O READ, WRITE, THINK
474 7369 6 APPRENTICE PLUMBER O MATH, GEOMETRY
474 7369 6 APPRENTICE SHEET METAL O MATH, GEOMETRY
474 7369 6 APPRENTICE STEAM FITTER O MATH, GEOMETRY
474 7369 6 PLUMBER
474 7369 6 PRE-APPRENTICE SHEET METAL O MATH, GEOMETRY
474 7369 6 PRE-APPRENTICE STEAM FITTER O MATH, GEOMETRY
230 7372 3 DATA ENTRY O CRT, COMPUTER CONCEPTS, TYPING, SPELLING
52 7372 3 ERRAND PERSON X TELEPHONE, USE WORD PROCESS, ASSEMBLE SHIPPING, KE
230 7372 3 PRODUCTION ASSIST O COMPUTER OPER,
282 7374 0 WORD PROCESS X TYPING
379 7374 3 DATA ENTRY X TYPING
183 7374 4 CLERICAL O TYPING, KNOW OFFICE PROCEDURE, READ

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183 7374 4 DATA ENTRY O READ, TYPING
183 7374 4 RECEPTIONIST O SPEAKING ABIL, TYPING
183 7374 4 SHIPPING O DRIVERS LICENSE, GOOD DRIVING RECORD, READ
174 7392 3 CLIPPING O MANUAL DEXERITY
457 7392 3 LABORER X PHYSICALLY STRONG, WILLING TO LEARN, PUNCTUAL, ABIL TO
171 7392 3 MAINTENANCE O
171 7392 3 SECRETARY O TYPING 60
274 7393 5 CLERICAL O
274 7393 5 SECURITY O
294 7394 3 DELIVERY X DRIVERS LICENSE, GOOD DRIVING RECORD, FRIENDLY, HELPFUL
294 7394 3 MECHANIC X MECHANICAL ABIL, BUSINESS ACUMEN, CUSTOMER ORIENT, COMM
294 7394 3 SALES CLERK X BUSINESS ACUMEN, CUSTOMER ORIENT, COMMUN, GOOD PERSO
294 7394 3 WAREHOUSE X MECHANICAL ABIL, SELF DIRECT, CUSTOMER ORIENT, BUSINES
589 7395 3 PHOTO PRINTER PROCESS X COLOR THEORY, CHEMICAL PROCESS
589 7395 3 SALES CLERK O KNOWL PHOTOGRAPHY, HUMAN RELAT, MARKETING
60 7397 1 CHEMICAL TECHNICIAN X CHEMISTRY BACKGROUND
568 7397 3 LABORER O
822 7399 3 CLERICAL O
822 7399 3 SALES O
822 7399 3 SERVICE TECH O
678 7399 4 CLERICAL O
144 7399 4 CLERICAL O TELEPHONE, FILING
678 7399 4 JANITOR O
678 7399 4 LINEWORKER O
678 7399 4 MACHINE SET UP O
144 7399 4 MAINTENANCE O
678 7399 4 MAINTENANCE O
678 7399 4 MATERIAL HANDLING O
144 7399 4 WORD PROCESS O ABIL OPER EQUIP
293 7399 6 CLERICAL O TYPING

AUTO REPAIR, SERVICES, AND GARAGES

244 7512 4 CLERICAL O TYPING, SHORTHAND, CALCULATOR
593 7531 2 LABORER O
587 7538 1 SALES CLERK O PERSONALITY, HANDLE MONEY
480 7538 2 MACHINIST TRAINEE O OPER SURFACE GRINDERS, BORING MILL/BAR, HONING
480 7538 2 MECHANIC HELPER O KNOWL AUTO ENGINE
486 7538 2 MECHANIC X READ, COOR, RESPONSIBLE, DESIRE TO LEARN, HEALTHY & STR
486 7538 2 PARTS CLERK X STRENGTH, READ, COOR, RESPONSIBLE, HEALTHY, DESIRE T
455 7538 3 LABORER O ABIL TO FDIRECT
460 7539 5 CLERICAL X BOOKKEEP, TYPING, OFFICE MACHINES
460 7539 5 INSTALLER TRAINEE X MECHANICAL ABIL, GOOD DRIVING RECORD, TECHNICA
460 7539 5 MAINTENANCE WORKER X MECHANICAL ABIL

MOTION PICTURES

304 7814 1 FILM/VOICE PRODUCTION O CREW EXPER

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

AMUSEMENT AND RECREATIONAL SERVICES

404 7933 3 BARTENDER O PERSONALITY, MATH
610 7933 3 BARTENDER X HANDLE MONEY, PERSONALITY, COMMON SENSE
610 7933 3 MAINTENANCE X MECH ABIL, COMMON SENSE
404 7933 3 MECHANIC O BOWLING MACHINES
665 7933 3 PIN CHASERS O
158 7997 5 KITCHEN WORK O
158 7997 5 WAITPERSON O

HEALTH SERVICES

OFFICES OF PHYSICIANS

571 8011 0 FILE CLERK O MATH, ABIL STAND ON FEET ALL DAY
467 8011 1 INSURANCE CLERK X FILING, TYPING, BOOKKEEP
467 8011 1 RECEPTIONIST X TYPING, FILING
435 8011 2 SECRETARY O TYPING, DICTATION
270 8011 3 FILE CLERK X ALPHABET
276 8011 4 MEDICAL RECORDS CLERK O KNOWL ALPHABET, FILING, TYPING
275 8011 4 MEDICAL TYPIST O MEDICAL VOCABULARY
275 8011 4 RECEPTIONIST O PEOPLE
544 8011 6 MEDICAL RECORDS CLERK O FILING, TELEPHONE, TYPING

OFFICES OF DENTISTS

802 8020 2 DENTAL ASSIST X LEARN DENTAL VOCABULARY, FORESIGHT
802 8020 2 RECEPTIONIST X FRIENDLY, ABIL DEAL W PEOPLE, ORGANIZATION, LOYALTY
413 8021 1 CLERICAL X CALCULATOR, BOOKKEEP, TELEPHONE
413 8021 1 SECRETARY X TYPING, COMPOSITION OF CORRESPONDENCE, GRAMMAR, COMMUN
233 8021 2 CLERICAL O BUSINESS MACHINES, TYPING
675 8021 2 DENTAL ASSIST O MATH, COMMUN
501 8021 2 RECEPTIONIST O TYPING, TELEPHONE, COMMUN
269 8021 2 SECRETARY X TYPING, BOOKKEEP
180 8021 4 CLERICAL O LOGIC

OFFICES OF OSTEOPATHIC PHYSICIANS

598 8031 1 CLERICAL X TYPING, SPELLING
598 8031 1 SECRETARY X FILING, SPELLING, MATH

OFFICES OF OTHER HEALTH PRACTITIONERS

390 8041 1 CHIROPRACTIC ASSIST O
390 8041 1 INSURANCE COOR O
266 8049 2 CLERICAL O TELEPHONE, TYPING, CALCULATOR
249 8049 4 CLERICAL X TYPING, FILING, MATH

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NURSING AND PERSONAL CARE FACILITIES

398 8051 4 HOUSEKEEP AIDE O
398 8051 4 LAUNDRY WORKER O
398 8051 4 NURSING ASSIST X READ, WRITE
186 8051 5 ACCOUNT CLERK O COMPUTERS, MATH
186 8051 5 FOOD SERVICE O ABIL READ MENUS, READ ORDERS
602 8051 5 FOOD SERVICE X FOOD HANDLING, GOOD MENTAL/PHYSICAL HEALTH
602 8051 5 HOUSEKEEP O TRUSTWORTHY, ABIL DEAL TACTFULLY W RESIDENTS
602 8051 5 JANITOR O GOOD JUDGEMENT, ABIL TO LEARN
186 8051 5 NURSING ASSIST O CONCERN FOR ELDERLY, HUMAN RELAT
602 8051 5 NURSING ASSIST X DESIRE TO WORK W AGED, GOOD MENTAL/PHYSICAL HEALT
186 8051 5 SECRETARY O HUMAN RELAT, TYPING 55

HOSPITALS

280 8062 6 CLERICAL X FILING
12 8062 6 FOOD SERVICE X PRIOR EXPER
280 8062 6 FOOD SERVICE X PRIOR EXPER W FOODS
12 8062 6 HOUSEKEEP O
280 8062 6 HOUSEKEEP O PRIOR CLEANING EXPER
12 8062 6 MESSENGER O
280 8062 6 NURSING ASSIST TRANSPORT X NURSING ASSIST EXPER
12 8062 6 NURSING ASSIST X
280 8062 6 NURSING ASSIST X PRIOR NURSING ASSIST EXPER
12 8062 6 RECEPTIONIST O TYPING 35

OUTPATIENT CARE FACILITIES

302 8081 1 FILE CLERK O

LEGAL SERVICES

629 8111 2 CLERICAL X VERB, ORGANIZATION
88 8111 2 SECRETARY O TYPING, DICTAPHONE, TELEPHONE
407 8111 2 SECRETARY O TYPING, DICTATION
629 8111 2 SECRETARY O VERB, STENOGRAPHIC, ORGANIZATION, VOCABULARY
557 8111 3 BOOKKEEP ASSIST O BOOKKEEP
557 8111 3 RECEPTIONIST X TYPING, ACCOUNTING
90 8111 3 SECRETARY X SPELLING, GRAMMAR, WRIT, TYPING, DICTAPHONE
664 8111 4 ERRAND PERSON O

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99 8111 4 SECRETARY O TYPING, SHORTHAND, COMMON SENSE, COMMUN, NEATNESS OF D
103 8111 5 CLERICAL O FILING

EDUCATIONAL SERVICES

570 8211 5 CLERICAL O ENGLISH, SPELLING, TYPING, CALCULATOR, COMMUN, FINSTRUC
74 8211 5 CLERICAL O TYPING 55, FILING, BOOKKEEP
558 8211 5 FOOD SERVICE O BAKING, COOKING, ORGANIZATION, NUTRITION
570 8211 5 FOOD SERVICE O FINSTRUCT, ABIL MANUAL & ROUTINE TASKS, SANITARY PR
74 8211 5 FOOD SERVICE O KNOWL NUTRITION, SAFE USE FOOD SERVICE EQUIP
74 8211 5 JANITOR O
570 8211 5 JANITOR O KNOWL CLEANING METHODS, FINSTRUCT, ABIL HEAVY LABOR
558 8211 5 MAINTENANCE O PLUMBING, JANITORIAL, DECISION-MAKING
558 8211 5 SECRETARY O SHORTHAND, COMPUTER, TELEPHONE, COMMUN, DECISION-MAKIN
74 8211 5 TEACHER AIDE O TYPING 55, OPER OFFICE MACHINES
558 8211 5 TEACHER AIDE O TYPING, SPELLING, READING, INSTRUCTIONAL STRATEGIES
492 8211 6 CLERICAL
492 8211 6 FOOD SERVICE
492 8211 6 JANITOR O
211 8221 5 ACCOUNT CLERK O
211 8221 5 CLERICAL O
211 8221 5 PROGRAM ASSIST O
211 8221 5 WORD PROCESS OPER O
126 8222 2 CLERICAL X TYPING, OFFICE MACHINES

SOCIAL SERVICES

613 8315 2 JANITOR O
159 8321 4 CAMP COUNSELOR X KNOWL CHILD DEVELOPMENT
159 8321 4 CHILD CARE X KNOWL CHILD DEVELOPMENT
154 8321 4 CLERICAL O TYPING, OPER OFFICE MACHINES
159 8321 4 CLERICAL X TYPING, FILING, MAIL, TELEPHONE, SHORTHAND
107 8321 5 CLERICAL O TYPING, OFFICE SKILLS
107 8321 5 EMERGENCY DISTRIBUTION CLERK O
107 8321 5 MOBILE UNIT ASSIST O
823 8331 4 MANAGER /SUPERVISOR O CERAMICS, WOODWORK ABIL, FIRST AID TRAINING,
251 8331 5 DATA ENTRY/BOOKKEEP O BOOKKEEP, DATA ENTRY
251 8331 5 DRIVER, TRUCK O DRIVERS LICENSE, GOOD DRIVING RECORD, COMMUN VERB/
251 8331 5 MANAGER /SUPERVISOR O VERB/WRIT COMMUN, RECORD KEEPING
251 8331 5 RECEPTIONIST O TYPING, COMMUN VERB/WRIT, RECORD KEEPING
638 8351 2 TEACHER AIDE X HANDLE GROUP OF CHILDREN CONSTRUCTIVELY
229 8351 3 CHILD CARE WORKER O
118 8361 4 FOOD SERVICE X WAITS SKILLS, EXPER,
118 8361 4 HOUSEKEEP X. ABIL OPER CLEANING EQUIP
252 8361 5 DIRECT CARE AIDE O
252 8361 5 FOOD SERVICE O FOOD PREPARATION
252 8361 5 HOUSEKEEP O JANITORIAL
252 8361 5 MAINTENANCE ASSIST O MECHANICAL ABIL
237 8399 2 CLERICAL O TYPING 60, SPELLING, PROOFREADING, BUSINESS MACHINES, F
132 8399 2 CLERICAL O TYPING 60, TELEPHONE

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

132 0399 2 PUBLIC RELAT O BUSINESS/MARKETING COURSES, ABIL WRIT, ABIL SPEAK
237 8399 2 SECRETARY O
116 8399 2 SECRETARY X EXPER W WORD PROCESS, SHORTHAND
128 8399 3 BOOKKEEP O BOOKKEEP THEORY, ACCURACY, FINSTRUCT
477 8399 3 CLERICAL O BUSINESS MACHINES, FILING, ORGANIZING
128 8399 3 CLERICAL O TYPING 45,
128 8399 3 MESSENGER X OPER COPY MACHINE, COLLATE, FINSTRUCT, RUN ERRANDS
3 8399 3 RECEPTIONIST O TYPING, FILING, RECORD KEEP, TELEPHONE
477 8399 3 SECRETARY O TELEPHONE, TYPING, ORGANIZING
3 8399 3 SECRETARY O TYPING, CALCULATOR, BOOKKEEP, FILING, SHORTHAND
449 8399 4 RECEPTIONIST X ORGANIZATION, SPEAKING, TYPING, SPELLING, GRAMMAR

MEMBERSHIP ORGANIZATIONS

500 8611 1 CLERICAL O MIMEO OPER
500 8611 1 MAIL CLERK O
163 8621 1 CLERICAL O TYPING
581 8621 1 CLERICAL O TYPING, SHORTHAND
268 8631 0 APPRENTICE CARPENTER O GOOD HEALTH, GOOD EYE/HAND COOR, WILLINGNES
668 8631 1 CLERICAL X TYPING, ALPHABETIZING, LETTER-WRITING, FILING, COLLATIN
591 8631 5 APPRENTICE O
412 8631 5 CLERICAL O FILING, OFFICE MACHINES, TYPING, PREPARE MAILINGS, GRAM
412 8631 5 DATA ENTRY O KEYPUNCH, VARITYPER, COMPOSER, TYPING,
412 8631 5 SECRETARY O DICTATION, TRANSCRIPTION, FILING, OFFICE MACHINES
824 8641 4 BUSSING O
115 8641 4 CANVASSING O
824 8641 4 CLERICAL O TYPING, FILING, TELEPHONE
115 8641 4 CLERICAL X TYPING 60, SHORTHAND, KNOWL OFFICE MACHINES
824 8641 4 KITCHEN UTILITY X COOKING, SANITATION
824 8641 4 MAINTENANCE O
94 8651 1 PHONE BANK OPER X TELEPHONE, ABIL TO DEAL DIPLOMATICALLY W PUBLIC,
142 8699 3 ANIMAL CARETAKER O SPEAK W PUBLIC
175 8699 4 CLERICAL O FILING, TYPING, READING, WRITING

PRIVATE HOUSEHOLDS

219 8811 2 LAB ASSIST X MATH, FINSTRUCT

MISCELLANEOUS SERVICES

54 8911 2 DRAFTSPERSON X DRAFTING, COMMUN, KNOWL OF EXPECTATIONS, AWARENESS
42 8911 2 LAB ASSIST O MATH, SCIENCE
168 8911 2 TECHNICIAN/LAB WORK O KNOWL TOOL/EQUIP
10 8911 3 DRAFTSPERSON O DRAFTING
10 8911 3 SECRETARY O TYPING, FILING, TELEPHONE,
179 8922 3 CLERICAL O TYPING, FILING
49 8922 4 CLERICAL X GRAMMAR, SPELLING
157 8922 4 CLERICAL X TYPING, ATTENDANCE, WRIT
49 8922 4 LAB SUPPORT TECHNICIAN O

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

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49 8922 4 LABORER O
157 8922 4 MAIL CLERK X READ, MATH, ATTENDANCE
49 8922 4 MAINTENANCE O TRAINING IN ELECTRONICS
49 8922 4 PURCHASING/RECEIVING/SHIPPING O COMMUN
8 8922 5 CLERICAL O TYPING, SPELLING, GRAMMAR,
8 8922 5 HYDROLOGIC TECHNICIAN O MECHANICAL ABIL, CARPENTRY, MATH, LOVE OUT
306 8931 2 CLERICAL O TYPING
306 8931 2 FILE CLERK O
228 8931 3 CLERICAL O TYPING
228 8931 3 COMPUTER OPER O
100 8931 4 CLERICAL O TYPING 70, CALCULATOR, FILING
504 8931 4 CLERICAL X FILING, TYPING
243 8931 4 FILE CLERK O
100 8931 4 RECEPTIONIST O TYPING 50, CALCULATOR, FILING
409 8999 1 CLERICAL X SPELLING, GRAMMAR, ATTENT, PRIDE IN WORK, TELEPHONE, FI

GOVERNMENT

EXECUTIVE, LEGISLATIVE, AND GENERAL

111 9111 4 CLERICAL O TYPING, SPELLING
111 9111 4 DATA ENTRY O TYPING, SPELLING
112 9121 4 CLERICAL X TYPING 45
209 9121 4 MESSENGER O POSITIVE ATTIT, FDIRECT
112 9121 4 SECRETARY 1 X TYPING 50, SHORTHAND 80 W15%ERROR
112 9121 4 SECRETARY 2 X TYPING 60, SHORTHAND 80 W5%ERROR
114 9121 5 MESSENGER O FINSTRUCT
114 9121 5 SECRETARY X TYPING, SHORTHAND, TELEPHONE, COMMUN
81 9131 2 DRIVER, TRUCK O KNOW HOW TO OPER TRUCK/GRADER
81 9131 2 LABORER O
61 9131 2 ROAD PATROL O EQUIP KNOWL
655 9131 3 CLERICAL X TYPING, SPELLING
626 9131 3 EMERGENCY DISPATCHERS X KEEN RESPONSE TO EMERGENCY SITUATIONS
32 9131 3 LABORER O
143 9131 3 LABORER O ABIL DRIVE LARGE TRUCKS
655 9131 3 LABORER X DRIVE, READ
626 9131 3 LIFEGUARD X WATER SAFETY CERTIFICATES
626 9131 3 RECREATIONAL SUPERVISORS X EXPER RECREATIONAL GAMES, EXPER HANDLIN
651 9131 4 CLERICAL O TYPING, FILING
651 9131 4 LABORER O OPER SANITATION TRUCK, TRUCK MAINTENANCE
508 9131 5 CLERICAL O COMMUN VERB/WRIT
508 9131 5 DISPATCHER O COMMUN VERB/WRIT
508 9131 5 LABORER O COMMUN VERB/WRIT
508 9131 5 LIBRARY ASSIST O COMMUN VERB/WRIT
517 9131 5 MAINTENANCE O KNOWL MECHANICS, KNOWL ELECTRICITY, KNOWL ELECTRONIC
517 9131 5 OPER O MATH, FINSTRUCT, CHECKING EQUIP
508 9131 5 SECRETARY O COMMUN VERB/WRIT
215 9131 6 CLERICAL X TYPING
215 9131 6 LABORER STREET/SEWER MAINT X LIFTING ABIL, GOOD PHYSICAL CONDITION
215 9131 6 MAINTENANCE X LIFTING ABIL, GOOD PHYSICAL CONDITION
619 9199 5 CLERICAL X TYPING 40

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

619 9199 5 WORD PROCESS OPER X TYPING 40
547 9199 6 CLERICAL O TYPING, WORD PROCESS, FILING
547 9199 6 JANITOR O CLEANING METHODS, KNOWL OF MECHANICAL EQUIP
547 9199 6 LABORER O OPER FORK LIFT, LIFT HEAVY WEIGHTS
547 9199 6 MAIL CLERK O KNOWL POSTAL REG
547 9199 6 POLICE CADET O GOOD PHYSICAL CONDITION
547 9199 6 POWER PLANT HELPER O MECHANICAL ABIL
547 9199 6 SHIPPING O KNOWL POSTAL REGULATIONS

JUSTICE, PUBLIC ORDER, AND SAFETY

204 9222 5 CLERICAL O TYPING, MATH, FILING, CRT, RECEPTIONIST

FINANCE, TAXATION, AND MONETARY POLICY

192 9311 3 CLERICAL O TYPING, CALCULATOR, PROOFREAD, OFFICE MACHINES
512 9311 4 CLERICAL X TYPING 55, SPELLING
512 9311 4 RECEPTIONIST O DICTATION, READING
548 9311 5 CLERICAL O TYPING
548 9311 5 DATA ENTRY O TYPING
213 9311 6 CLERICAL O FILING, RECORD KEEPING, RECEPTIONIST
213 9311 6 DATA ENTRY O KEYPUNCHING

ADMINISTRATION OF HUMAN RESOURCES

5 9411 6 CHILD CARE WORKER O
5 9411 6 CLERICAL O TYPING 45
5 9411 6 PROGRAM ASSIST O TYPING 45, SHORTHAND
5 9411 6 WORD PROCESS OPER O TYPING 45
303 9431 1 ADMIN X BOOKKEEP, TYPING, RECEPTIONIST, TELEPHONE
207 9441 6 STATE CIVIL SER O STATE LAW PROHIBITS REQUIRING H.S. DIPLOMA

ENVIRONMENTAL QUALITY AND HOUSING

826 9512 6 CLERICAL X TYPING, FILING, SPELLING, WRIT
826 9512 6 LABORER X PHYSICAL AGILITY, FINSTRUCT, READ
826 9512 6 OUTDOOR LABOR X KNOWL SMALL TOOLS, DRIVING AUTO,
113 9532 5 CLERICAL O FILING
113 9532 5 ENGINEERING AID O
113 9532 5 PROGRAM ASSIST O
113 9532 5 WORD PROCESS O TYPING, PROOFREADING

ADMINISTRATION OF ECONOMIC PROGRAMS

203 9631 5 CLERICAL X WORD PROCESS, GRAMMAR, SPELLING, LETTER WRITING
212 9641 6 CLERICAL X TYPING, GENERAL OFFICE ABIL
212 9641 6 COMMODITY GRADER X WILLING TO LEARN/LISTEN, POSITIVE ATTIT

Job Titles/General SIC Class

ID/SIC#/S/JOB TITLE/COMMENT/SKILLS REQUIRED BY EMPLOYER

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212 9641 6 COMPUTER OPER X TYPING
212 9641 6 INSPECTOR/REGULATING X VERB/WRIT ABIL
212 9641 6 LABORER X WILLING TO LEARN/LISTEN, POSITIVE ATTIT
196 9651 4 WORD PROCESS OPER O TYPING, GRAMMAR, MACHINE TRANSCRIPTION
554 9651 5 CLERICAL O TYPING, COMPUTER
554 9651 5 DATA ENTRY O COMPUTER, CRT
554 9651 5 INVESTIGATOR O PRIOR EXPER
210 9711 5 ACCOUNT CLERK O BOOKKEEP, TYPING, COMMUN VERB/WRIT
210 9711 5 JANITOR O GOOD PHYSICAL CONDITION
210 9711 5 SECURITY X COMMUN VERB/WRIT, GOOD PHYSIC[illegible], CONDITION

END OF LIST

ATTACHMENT C - EMPLOYERS SURVEY

5. Skills High School Graduates Need for Present Jobs

(Alphabetical Listing)

ANALYSIS OF DATA - EMPLOYER SURVEY

APPHABETICAL LISTING:

SKILLS HIGH SCHOOL GRADUATES NEED FOR PRESENT JOBS

Prepared by:

The Greater Madison Task Force

for Planning Occupational Skills Education

Employers were asked to list the entry jobs they would offer to high school graduates as well as the skills high school grads would need to obtain these jobs. The following is a list of their responses in which the required SKILLS are listed in alphabetical order.

Over 2,200 surveys were sent out, and 695 were returned for a response rate of 30.5 percent. Of these, 595 indicated they would offer one or more jobs to a high school graduate, and a total of 955 job titles were listed. In this list, particular job title repeats, because it is associated with a different employer each time it is listed.

Of the 955 job/employer units, 273 or 28.6 percent of the 955 job/employer units did not identify any skills for entry to these positions. The other 682 job/employer units listed a total 1,604 skills. In the attached listing, job/employer units are associated with skills.

For example, an employer listed two positions, e.g. janitor and sales clerk. This employer did not list any skills for the janitor position, so the listing would be "9 janitor _____." The employer listed two skills for the sales clerk (handle money and people skills), so it would be listed twice: 1) "9 sales clerk handle money," and 2) "9 sales clerk people skills." The number "9" refers to the General Standard Industrial Classification or SIC CLASS to which an employer belongs. The "9" identifies a "other retail store." Table 1, on the next page, provides a listing of the General SIC Classes used in the survey.

General SIC CLASS

1 = Agriculture
2 = Mining and Construction
3 = Durable Goods Manufacturing
4 = Non-Durable Goods Manufacturing
5 = Transportation and Utilities
6 = Wholesale Trade
7 = General Merchandise, Food, Apparel and Furniture
8 = Eating and Drinking Places
9 = Other Retail Stores
10 = Finance, Insurance, Real Estate
11 = Business and Legal Services
12 = Health Services
13 = Other Services
14 = Government

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
13	ACCOUNT CLERK	
3	APPRENTICE LEATHER WORKER	
2	APPRENTICE	
2	APPRENTICE	
13	APPRENTICE	
2	APPRENTICE	
2	APPRENTICE	
2	APPRENTICE	
2	APPRENTICE PAINTER	
4	APPRENTICE STRIPPER	
3	ASSEMBLY	
8	ASSIST COOK	
9	AUTO CLEANER	
4	AWNING MECHANICS/INSTALLERS	
7	BAKER HELPER	
7	BAKER	
13	BANQUET SETUP	
8	BARTENDER	
7	BARTENDER	
8	BARTENDER	
13	BARTENDER	
8	BARTENDER	
4	BINDERY	
10	BOOKKEEP	
10	BOOKKEEP	
7	BOOKKEEP	
10	BOOKKEEP	
5	BUS DRIVER	
8	BUSSING	
13	BUSSING	
8	BUSSING	
8	BUSSING	
8	BUSSING	
7	CAKE DECORATING	
13	CANVASSING	
2	CARPENTER	
3	CELL ASSEMBLY	
7	CHECKER	
14	CHILD CARE WORKER	
13	CHILD CARE WORKER	
12	CHIROPRACTIC ASSIST	
7	CLEAN UP	
13	CLERICAL	
10	CLERICAL	
13	CLERICAL	
2	CLERICAL	
10	CLERICAL	
11	CLERICAL	
10	CLERICAL	
2	CLERICAL	
11	CLERICAL	
13	CLERICAL	

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
9	CLERICAL	
5	CLERICAL	
10	CLERICAL	
11	CLERICAL	
8	COCKTAIL WAITRESS	
13	COMPUTER OPERATOR	
7	COOK	
8	COOK	
8	COOK	
8	COOK	
8	COOK	
8	COOKS HELPER	
6	CYLINDER FILLER	
2	DATA ENTRY	
6	DELIVERY	
13	DIRECT CARE AIDE	
8	DISHWASHER	
8	DISHWASHER	
8	DISHWASHER	
13	DISHWASHER	
7	DISHWASHER	
7	DISHWASHER	
8	DISHWASHER	
8	DISHWASHER	
8	DISHWASHER	
2	DISPATCHER	
6	DRAFTSPERSON	
7	DRIVER	
6	DRIVER, TRUCK	
9	DRIVER, TRUCK	
6	DRIVER, TRUCK	
3	DRIVER, TRUCK	
6	DRIVER, TRUCK	
2	DRIVER, TRUCK	
6	DRIVER, TRUCK	
6	DRIVER, TRUCK	
2	DRIVER, TRUCK	
5	DRIVER, TRUCK	
9	DRIVER, TRUCK	
5	DRIVER/SCHOOL BUS	
9	DRIVEWAY SALES	
13	EMERGENCY DISTRIBUTION CLERK	
14	ENGINEERING AID	
11	ERRAND PERSON	
13	FILE CLERK	
13	FILE CLERK	
4	FILE CLERK	
12	FILE CLERK	
13	FOOD SERVICE	
6	GO-FOR	
12	HOUSEKEEP AIDE	
13	HOUSEKEEP	

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
12	HOUSEKEEP	
8	HOUSEKEEP	
13	HOUSEKEEP	
12	INSURANCE COOR	
13	JANITOR	
3	JANITOR	
13	JANITOR	
3	JANITOR	
8	JANITOR	
13	JANITOR	
3	JANITOR	
9	JANITOR	
3	JANITOR	
13	JANITOR	
11	JANITOR	
11	JANITOR	
3	JANITOR	
1	JANITOR	
8	KITCHEN PREP	
13	KITCHEN WORK	
13	LAB SUPPORT TECHNICIAN	
4	LABORER	
9	LABORER	
2	LABORER	
14	LABORER	
2	LABORER	
1	LABORER	
3	LABORER	
10	LABORER	
8	LABORER	
3	LABORER	
2	LABORER	
5	LABORER	
9	LABORER	
3	LABORER	
11	LABORER	
13	LABORER	
2	LABORER	
2	LABORER	
2	LABORER	
11	LABORER	
1	LABORER	
14	LABORER	
4	LABORER	
6	LABORER	
12	LABORER	
4	LABORER	
1	LABORER/SEASONAL	
1	LABORER/SEASONAL	
9	LABORER, YARD	
12	LAUNDRY WORKER	
5	LETTER CARRIER	

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
5	LETTER SORTING MACHINE OPER	
8	LINE WORKER	
5	LINEWORKER	
11	LINEWORKER	
5	LINEWORKER	
8	LOGISTIC	
11	MACHINE SET UP	
3	MACHINIST TRAINEE	
10	MAIL CLERK	
3	MAIL CLERK	
3	MAIL CLERK	
5	MAIL CLERK	
13	MAIL CLERK	
6	MAIL CLERK	
13	MAINTENANCE	
10	MAINTENANCE	
11	MAINTENANCE	
9	MAINTENANCE	
11	MAINTENANCE	
3	MAINTENANCE	
10	MAINTENANCE	
8	MAINTENANCE	
11	MAINTENANCE	
11	MATERIAL HANDLING	
7	MEAT DEPT CLERK	
12	MESSENGER	
13	MOBILE UNIT ASSIST	
12	NURSING ASSIST	
6	ORDER PICKER/PACKER	
3	PACKER	
3	PACKER	
3	PAINTER	
2	PARTS CLERK	
6	PARTS CLERK	
13	PIN CHASERS	
11	PLUMBER	
8	PREP CREW	
13	PRESSING PANTS	
14	PROGRAM ASSIST	
13	PROGRAM ASSIST	
10	RECEPTIONIST	
2	RECORDS CLERK	
10	RECORDS CLERK	
6	ROUTE SALES	
8	SALAD COOK	
8	SALAD COOK	
8	SALAD COOK	
8	SALAD COOK	
11	SALES	
7	SALES CLERK	
9	SALES CLERK	
13	SALES CLERK	

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
7	SALES CLERK	
9	SALES CLERK	
9	SALES CLERK	
9	SALES CLERK	
7	SALES CLERK	
7	SALES CLERK	
9	SALES CLERK	
7	SALES CLERK	
9	SALES CLERK	
9	SALES CLERK	
9	SALES CLERK	
7	SALES CLERK	
6	SALES CLERK	
8	SALES CLERK	
9	SALES CLERK	
5	SALES CLERK	
7	SALES CLERK	
13	SALES	
9	SALES TRAINEE	
10	SECRETARY	
1	SECRETARY	
13	SECRETARY	
10	SECRETARY	
2	SECRETARY	
6	SECRETARY	
11	SECURITY	
9	SERVICE ASSIST	
11	SERVICE TECH	
4	SHIPPING	
4	SHIPPING ASSIST	
6	SHIPPING	
3	SHIPPING	
3	SHIPPING	
9	SHOP ASSIST	
7	STOCK CLERK	
6	STOCK CLERK	
9	STOCK CLERK	
9	STOCK CLERK	
7	STOCK CLERK	
9	STOCK CLERK	
7	STOCK CLERK	
7	STOCK CLERK	
7	STOCK CLERK/CARRY OUT	
4	TENT INSTALLERS	
8	WAITPERSON	
8	WAITPERSON	
8	WAITPERSON	
13	WAITPERSON	
8	WAITPERSON	
7	WAITPERSON	
8	WAITPERSON	
6	WAREHOUSE	

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
6	WAREHOUSE	
4	WAREHOUSE	
6	WAREHOUSE	
6	WAREHOUSE	
4	WAREHOUSE	
6	WAREHOUSE	
1	WAREHOUSE	
6	WAREHOUSE	
8	WASTE	
3	WELDER	
13	WORD PROCESS OPER	
6	WRAPPER	
7	CASHIER	ABIL COMMUN W CUSTOMERS
7	DRIVEWAY SALES	ABIL COMMUN W CUSTOMERS
3	LABORER	ABIL CUT PARTS
12	HOUSEKEEP	ABIL DEAL TACTFULLY W RESIDENT
12	RECEPTIONIST	ABIL DEAL W PEOPLE
4	WAREHOUSE	ABIL DEAL W PEOPLE
6	WAREHOUSE	ABIL DRIVE
5	DELIVERY	ABIL DRIVE AUTO
14	LABORER	ABIL DRIVE LARGE TRUCKS
6	SALES CLERK	ABIL FILL ORDERS
6	SHIPPING/RECEIVING	ABIL FILL ORDERS
13	JANITOR	ABIL HEAVY LABOR
4	CAMERA MAN	ABIL LEARN
9	PARTS CLERK	ABIL LEARN USE OF PARTS CATALO
10	MAIL CLERK	ABIL LIFT HEAVY LOADS
7	WAREHOUSE	ABIL LIFT HEAVY OBJECTS
13	FOOD SERVICE	ABIL MANUAL & ROUTINE TASKS
3	ASSEMBLY, HAND STAMP	ABIL MATCH ORDERS W FINAL PROD
7	SALES CLERK	ABIL OPER CASH REGISTER
13	HOUSEKEEP	ABIL OPER CLEANING EQUIP
11	WORD PROCESS	ABIL OPER EQUIP
4	PRESS OPER	ABIL OPER SMALL PRESS
6	SALES CLERK	ABIL READ
6	SHIPPING/RECEIVING	ABIL READ
12	FOOD SERVICE	ABIL READ MENUS
13	PUBLIC RELAT	ABIL SPEAK
12	FILE CLERK	ABIL STAND ON FEET ALL DAY
5	DRIVER, TRUCK	ABIL THINK
3	ASSEMBLY	ABIL TO COMMUN/PROBLEM SOLVE
13	PHONE BANK OPER	ABIL TO DEAL DIPLOMATICALLY W
13	LABORER	ABIL TO FDIRECT
12	JANITOR	ABIL TO LEARN
10	TELLER	ABIL TO MEET PEOPLE
11	LABORER	ABIL TO WORK HARD
2	APPRENTICE CARPENTER	ABIL USE TOOLS
2	APPRENTICE	ABIL WORK W OTHERS
3	APPRENTICE CABINET MKR	ABIL WORK WITH WOODWORKING EQU
13	PUBLIC RELAT	ABIL WRIT
9	SALES	ABIL WRIT SALES
5	JANITOR	ACCEPT WORK DEMANDS

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
5	CLERICAL	ACCOMMODATING
6	BOOKKEEP	ACCOUNTING
10	ACCOUNT CLERK	ACCOUNTING
4	CLERICAL	ACCOUNTING
4	CLERICAL	ACCOUNTING
11	RECEPTIONIST	ACCOUNTING
9	SALES CLERK	ACCOUNTING
10	BOOKKEEP	ACCOUNTING
9	CLERICAL	ACCOUNTING
10	TELLER	ACCOUNTING
6	DATA ENTRY	ACCURACY
4	PACKER	ACCURACY
6	WAREHOUSE	ACCURACY
13	BOOKKEEP	ACCURACY
6	CLERICAL	ACCURACY
10	CLERICAL	ACCURACY
6	WAREHOUSE	ACCURACY
6	PAINT MIXER	ACCURATE
9	DRIVEWAY SALES	ADD
9	SALES CLERK	ADD & SUBTRACT
6	SALES	AGGRESSIVENESS
12	FILE CLERK	ALPHABET
10	MAIL CLERK	ALPHABETICAL ABIL
10	CLERICAL	ALPHABETICAL ABIL
10	CLERICAL	ALPHABETIZE
10	MAIL CLERK	ALPHABETIZE
13	CLERICAL	ALPHABETIZING
7	WAREHOUSE	ALERTNESS
2	LABORER	AMBITION
2	APPRENTICE PLUMBER	AMBITION
9	SALES CLERK	AMBITION
9	CARWASH ATTENDANT	AMBITION
12	RECEPTIONIST	AMBITIOUS
13	AEROBICS INSTRUCTOR	ANATOMY & PHYSIOLOGY
6	DRIVER	APPEARANCE
6	SALES	APPEARANCE
4	TYPESETTER	APT
10	RATE/CODER	APT MATH
3	PHOTO WORK	ART
4	PASTEUP/STRIPPER	ARTISTIC
11	ERRAND PERSON	ASSEMBLE SHIPPING
13	CLERICAL	ATTENDANCE
5	LABORER	ATTENDANCE
5	LABORER	ATTENDANCE
13	MAIL CLERK	ATTENDANCE
5	PERMIT CLERK	ATTENDANCE
5	CLERICAL	ATTENDANCE
13	DESK CLERK	ATTENDANCE
4	PACKER	ATTENT
13	CLERICAL	ATTENT
4	BOOK PREPARATION	ATTENT DETAIL
4	COVER MAKING	ATTENT DETAIL

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
4	TRIMMER	ATTENT DETAIL
10	CRT OPER	ATTENT SPAN
2	LABORER	ATTIT
2	APPRENTICE PLUMBER	ATTIT
2	MANAGER TRAINEE	ATTIT
6	WAREHOUSE	ATTIT
6	CLERICAL	ATTIT
9	DELIVERY	AVERAGE INTELLIGENCE
13	DRAFTSPERSON	AWARENESS OF CONSTRUCTION MATE
13	FOOD SERVICE	BAKING
13	BARTENDER	BARTENDER/ALCOHOL AWARENESS TR
10	BOOKKEEP	BASIC ACCOUNTING
10	ACCOUNT CLERK	BASIC ACCOUNTING
6	CLERICAL	BASIC COMMUN
7	SERVICE TECH	BASIC ELECTRONICS THEORY
4	IMAGE ASSEMBLER	BASIC PRINTING SKILLS
4	PRESS OPER	BASIC PRINTING SKILLS
13	BEAUTICIAN	BEAUTY SCHOOL GRAD
7	BAKER HELPER	BENCH WORK
10	TELEPHONE OPER	BOOKKEEP
14	ACCOUNT CLERK	BOOKKEEP
13	ACCOUNT CLERK	BOOKKEEP
14	ADMIN	BOOKKEEP
11	BOOKKEEP ASSIST	BOOKKEEP
10	BOOKKEEP	BOOKKEEP
13	CLERICAL	BOOKKEEP
13	DATA ENTRY/BOOKKEEP	BOOKKEEP
10	MEMBER SERVICES CLERK	BOOKKEEP
6	ACCOUNT CLERK	BOOKKEEP
10	ADMIN	BOOKKEEP
4	CLERICAL	BOOKKEEP
12	CLERICAL	BOOKKEEP
3	CLERICAL	BOOKKEEP
9	CLERICAL	BOOKKEEP
10	LOAN CLERK	BOOKKEEP
10	PAYROLL CLERK	BOOKKEEP
5	RECEPTIONIST	BOOKKEEP
3	SECRETARY	BOOKKEEP
12	SECRETARY	BOOKKEEP
10	TELLER	BOOKKEEP
10	TELLER	BOOKKEEP
13	CLERICAL	BOOKKEEP
12	INSURANCE CLERK	BOOKKEEP
7	RECEPTIONIST	BOOKKEEP
13	SECRETARY	BOOKKEEP
10	TELLER	BOOKKEEP
6	CLERICAL	BOOKKEEP
10	TELLER	BOOKKEEP
9	CLERICAL	BOOKKEEP
13	BOOKKEEP	BOOKKEEP THEORY
13	MACHINIST TRAINEE	BORING MILL/BAR
13	MECHANIC	BOWLING MACHINES

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
9	MECHANIC	BRAKE JOBS
2	MANAGER TRAINEE	BUSINESS ACUMEN
11	SALES CLERK	BUSINESS ACUMEN
11	MECHANIC	BUSINESS ACUMEN
11	WAREHOUSE	BUSINESS ACUMEN
11	DELIVERY	BUSINESS ACUMEN
3	CLERICAL	BUSINESS ACUMMEN
4	SECRETARY	BUSINESS COURSES
13	CLERICAL	BUSINESS MACHINES
12	CLERICAL	BUSINESS MACHINES
3	CLERICAL	BUSINESS MACHINES
10	BOOKKEEP	BUSINESS MACHINES
4	CLERICAL	BUSINESS MACHINES
10	TELLER	BUSINESS MACHINES
13	CLERICAL	BUSINESS MACHINES
6	CLERICAL	BUSINESS MACHINES ABIL
13	PUBLIC RELAT	BUSINESS/MARKETING COURSES
13	MANAGER/SUPERVISOR	BUSINESS SENSE
10	BOOKKEEP	CALCULATOR
10	BOOKKEEP	CALCULATOR
6	CLERICAL	CALCULATOR
12	CLERICAL	CALCULATOR
10	PAYROLL CLERK	CALCULATOR
10	RECEPTIONIST	CALCULATOR
10	TELLER	CALCULATOR
10	TELLER	CALCULATOR
10	TELLER	CALCULATOR
10	TELLER	CALCULATOR
10	ACCOUNT CLERK	CALCULATOR
13	ACCOUNT CLERK	CALCULATOR
13	CLERICAL	CALCULATOR
10	CLERICAL	CALCULATOR
10	CLERICAL	CALCULATOR
4	CLERICAL	CALCULATOR
14	CLERICAL	CALCULATOR
3	CLERICAL	CALCULATOR
9	CLERICAL	CALCULATOR
10	MEMBER SERVICES CLERK	CALCULATOR
13	RECEPTIONIST	CALCULATOR
9	SALES CLERK	CALCULATOR
13	SECRETARY	CALCULATOR
10	TELEPHONE OPER	CALCULATOR
10	TELLER	CALCULATOR
10	TELLER	CALCULATOR
10	TELLER	CALCULATOR
10	TELLER	CALCULATOR
12	CLERICAL	CALCULATOR
4	CLERICAL	CALCULATOR
10	CLERICAL	CALCULATOR
13	CLERICAL	CALCULATOR
5	CLERICAL	CALCULATOR
10	LOAN CLERK	CALCULATOR

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
13	CLERICAL	CALCULATOR
10	RECEPTIONIST	CALCULATOR
3	PHOTO WORK	CAMERA/DARKROOM EXPER
6	SERVICE TECH	CARBURETOR ABIL
7	WAREHOUSE	CARE ABOUT JOB
5	LABORER	CARING
13	HYDROLOGIC TECHNICIAN	CARPENTRY
9	SALES CLERK	CASH REGISTER
9	SALES	CASH REGISTER
9	SALES CLERK	CASHIERING
13	MANAGER /SUPERVISOR	CERAMICS
5	DRIVER, TRUCK	CHAUFFUERS LICENSE
4	DRIVER	CHECK DELIVERIES
14	OPER	CHECKING EQUIP
11	PHOTO PRINTER PROCESS	CHEMICAL PROCESS
11	CHEMICAL TECHNICIAN	CHEMISTRY BACKGROUND
13	AEROBICS INSTRUCTOR	CHOREOGRAPHY
8	DELIVERY	CLEAN
14	JANITOR	CLEANING METHODS
10	BOOKKEEP	CLEAR THINKER
10	BOOKKEEP	CLERICAL
10	TELLER	CLERICAL
6	CLERICAL	CLERICAL SKILLS
13	MESSENGER	COLLATE
13	CLERICAL	COLLATING
3	SIGN MAKERS	COLOR COOR
11	PHOTO PRINTER PROCESS	COLOR THEORY
7	WAREHOUSE	COLOR VISION
2	APPRENTICE BRICKLAYER	COMMON SENSE
2	LABORER	COMMON SENSE
7	SALES CLERK	COMMON SENSE
9	SALES CLERK	COMMON SENSE
7	SALES CLERK	COMMON SENSE
7	WAREHOUSE/DELIVERY	COMMON SENSE
9	CARWASH ATTENDANT	COMMON SENSE
4	LABORER	COMMON SENSE
13	MAINTENANCE	COMMON SENSE
8	MANAGER ASSIST	COMMON SENSE
8	MANAGER	COMMON SENSE
7	SALES CLERK	COMMON SENSE
7	BAGGERS	COMMON SENSE
13	BARTENDER	COMMON SENSE
5	DRIVER, TRUCK	COMMON SENSE
11	SECRETARY	COMMON SENSE
9	DRIVEWAY SALES	COMMUNICATE
9	DRIVEWAY SALES	COMMUNICATE
8	FOOD SERVICE	COMMUNICATE
10	INSURANCE SALES	COMMUNICATE
3	LABORER	COMMUNICATE
9	LABORER	COMMUNICATE
13	PURCHASING/RECEIVING/SHIPPIN	COMMUNICATE
7	SALES CLERK	COMMUNICATE

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
3	SIGN MAKERS	COMMUNICATE
10	TELLER	COMMUNICATE
5	TRAVEL AGENT	COMMUNICATE
8	BARTENDER	COMMUNICATE
3	CLERICAL	COMMUNICATE
10	CLERICAL	COMMUNICATE
12	DENTAL ASSIST	COMMUNICATE
13	DRAFTSPERSON	COMMUNICATE
10	MAINTENANCE	COMMUNICATE
10	RECEPTIONIST	COMMUNICATE
10	RECEPTIONIST	COMMUNICATE
9	SALES CLERK	COMMUNICATE
9	TELEPHONE SALES	COMMUNICATE
10	TELLER	COMMUNICATE
6	WAREHOUSE	COMMUNICATE
13	DESK CLERK	COMMUNICATE
9	DRIVEWAY SALES	COMMUNICATE
13	PORTER	COMMUNICATE
12	RECEPTIONIST	COMMUNICATE
11	SALES CLERK	COMMUNICATE
10	TELLER	COMMUNICATE
10	BOOKKEEP	COMMUNICATE
4	CLERICAL	COMMUNICATE
5	HOUSEKEEP	COMMUNICATE
11	MECHANIC	COMMUNICATE
13	SECRETARY	COMMUNICATE
11	SECRETARY	COMMUNICATE
12	SECRETARY	COMMUNICATE
14	SECRETARY	COMMUNICATE
13	CLERICAL	COMMUNICATE
3	SECRETARY	COMMUNICATE
7	WAREHOUSE	COMMUNICATE
11	CLERICAL	COMMUNICATE
11	SECRETARY	COMMUNICATE
14	CLERICAL	COMMUNICATE, VERBAL & WRITTEN
6	CLERICAL	COMMUNICATE, VERBAL & WRITTEN
6	DATA ENTRY	COMMUNICATE, VERBAL & WRITTEN
14	DISPATCHER	COMMUNICATE, VERBAL & WRITTEN
14	LABORER	COMMUNICATE, VERBAL & WRITTEN
14	LIBRARY ASSIST	COMMUNICATE, VERBAL & WRITTEN
6	RECEPTION	COMMUNICATE, VERBAL & WRITTEN
14	SECRETARY	COMMUNICATE, VERBAL & WRITTEN
6	SECRETARY	COMMUNICATE, VERBAL & WRITTEN
14	SECURITY	COMMUNICATE, VERBAL & WRITTEN
6	WAREHOUSE	COMMUNICATE, VERBAL & WRITTEN
10	ACCOUNT CLERK	COMMUNICATE, VERBAL & WRITTEN
4	INSPECTOR/PACKER	COMMUNICATE, VERBAL & WRITTEN
13	RECEPTIONIST	COMMUNICATE, VERBAL & WRITTEN
14	ACCOUNT CLERK	COMMUNICATE, VERBAL & WRITTEN
13	DRIVER, TRUCK	COMMUNICATE, VERBAL & WRITTEN
3	SALES CLERK	COMMUN W CUSTOMERS
5	DRIVER/SCHOOL BUS	COMMUN W YOUNGSTERS

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
13	DATA ENTRY	COMPOSER
12	SECRETARY	COMPOSITION OF CORRESPONDENCE
10	CLERICAL	COMPUTER
14	DATA ENTRY	COMPUTER
6	CLERICAL	COMPUTER
14	CLERICAL	COMPUTER
13	SECRETARY	COMPUTER
1	CLERICAL	COMPUTER
10	SECRETARY	COMPUTER
5	TRAVEL AGENT	COMPUTER
13	TEACHER AIDE	COMPUTER
6	CLERICAL	COMPUTER BASICS
11	DATA ENTRY	COMPUTER CONCEPTS
11	PRODUCTION ASSIST	COMPUTER OPER
6	ORDER ENTRY	COMPUTER/KEYBOARD ABIL
12	ACCOUNT CLERK	COMPUTERS
7	DELIVERY	CONCERN FOR CUSTOMERS
12	NURSING ASSIST	CONCERN FOR ELDERLY
8	SALES CLERK	CONFIDENCE
7	SALES CLERK	CONSUMER RELAT
8	COOK	COOK EXPER
13	KITCHEN UTILITY	COOKING
13	FOOD SERVICE	COOKING
4	LABORER	COOR
4	SHIPPING/RECEIVING	COOR
13	MECHANIC	COOR
13	PARTS CLERK	COOR
8	SALES CLERK	COUNT
13	CLERICAL	COUNTING
7	BAGGERS	COURTESY
13	AEROBICS INSTRUCTOR	CPR/FIRST AID CERTIFICATES
13	MACHINIST TRAINEE	CRANK GRINDERS
3	LABORER	CREATIVITY
13	FILM/VOICE PRODUCTION	CREW EXPER
10	ACCOUNT CLERK	CRT
10	CLERICAL	CRT
11	DATA ENTRY	CRT
10	LOAN CLERK	CRT
10	RECEPTIONIST	CRT
10	RECEPTIONIST	CRT
10	TELLER	CRT
10	CLERICAL	CRT
10	CLERICAL	CRT
5	CLERICAL	CRT
5	CLERICAL	CRT
6	CLERICAL	CRT
14	DATA ENTRY	CRT
10	RECEPTIONIST	CRT
10	TELLER	CRT
10	CLERICAL	CRT
14	CLERICAL	CRT
5	CLERICAL	CRT

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
5	TRAVEL AGENT	CRT
10	CRT OPER	CRT EXPER
10	TELLER	CRT TYPING
3	LABORER	CUSTOM WORK
11	SALES CLERK	CUSTOMER ORIENT
11	MECHANIC	CUSTOMER ORIENT
11	WAREHOUSE	CUSTOMER ORIENT
7	SALES CLERK	CUSTOMER RELAT
13	DATA ENTRY/BOOKKEEP	DATA ENTRY
6	CLERICAL	DATA ENTRY
10	ACCOUNT CLERK	DATA PROCESS
13	MAINTENANCE	DECISION-MAKING
13	SECRETARY	DECISION-MAKING
8	FOOD SERVICE WORKERS	DEPENDABILITY
6	SALES	DESIRE
3	ASSEMBLY, HAND STAMP	DESIRE FOR QUALITY
13	MECHANIC	DESIRE TO LEARN
13	PARTS CLERK	DESIRE TO LEARN
4	LABORER	DESIRE TO WORK
3	LABORER	DESIRE TO WORK
6	LABORER	DESIRE TO WORK
12	NURSING ASSIST	DESIRE TO WORK W AGED
10	MAIL CLERK	DEXTERITY
10	PROOF MACHINE OPER	DEXTERITY
10	TELLER	DEXTERITY
4	LABORER	DEXTERITY
4	SHIPPING/RECEIVING	DEXTERITY
13	HOUSEKEEP	DEXTERITY
10	CLERICAL	DEXTERITY
10	PROOF DEPT.	DEXTERITY
7	MECHANIC	DIAGNOSE PROBLEMS
10	SECRETARY	DICTAPHONE
11	SECRETARY	DICTAPHONE
10	SECRETARY	DICTAPHONE
10	LOAN PROCESS	DICTAPHONE
10	SECRETARY	DICTAPHONE
11	SECRETARY	DICTAPHONE
11	SECRETARY	DICTAPHONE
14	RECEPTIONIST	DICTATION
13	SECRETARY	DICTATION
11	SECRETARY	DICTATION
12	SECRETARY	DICTATION
10	CLERICAL	DICTATION
3	CLERICAL	DICTATION
6	ORDER PICKER	DIFFERENTIATE BETWEEN SIMILAR
7	WAREHOUSE	DILIGENCE
9	SALES CLERK	DO INSURANCE FORM WORK
2	APPRENTICE SHEET METAL	DRAFTING
2	APPRENTICE STEAMFIT	DRAFTING
13	DRAFTSPERSON	DRAFTING
13	DRAFTSPERSON	DRAFTING
14	LABORER	DRIVE

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
9	DELIVERY	DRIVERS LICENSE
8	DELIVERY	DRIVERS LICENSE
6	DELIVERY	DRIVERS LICENSE
11	DELIVERY	DRIVERS LICENSE
9	DELIVERY	DRIVERS LICENSE
5	DRIVER, TRUCK	DRIVERS LICENSE
13	DRIVER, TRUCK	DRIVERS LICENSE
11	SHIPPING	DRIVERS LICENSE
9	DRIVEWAY SALES	DRIVERS LICENSE
9	MECHANIC	DRIVERS LICENSE
3	WAREHOUSE	DRIVING
14	OUTDOOR LABOR	DRIVING AUTO
6	DRIVER	DRIVING RECORD
6	CLERICAL	EDP KEYBOARD
6	DELIVERY	EDP KEYBOARD
6	WAREHOUSE	EDP KEYBOARD
6	SHIPPING/RECEIVING	EFFICIENCY
6	TECHNICAL LABORER	ELECTRIC VEHICLE CONTROL
6	SERVICE TECH	ELECTRICAL ABIL
3	JANITOR/MAINTENANCE	ELECTRICITY
10	CLERICAL	ELECTRONIC FILING
3	LABORER	EMPLOYEE RELAT
13	CLERICAL	ENGLISH
10	RECEPTIONIST	ENGLISH
4	CLERICAL	ENGLISH
10	SECRETARY	ENGLISH
3	SECRETARY	ENGLISH
10	STENOGRAPHERS	ENGLISH
3	CLERICAL	ENGLISH
8	SALES CLERK	ENGLISH
3	CLERICAL	ENGLISH
14	ROAD PATROL	EQUIP KNOWL
9	LABORER	EXPER
13	FOOD SERVICE	EXPER
14	RECREATIONAL SUPERVISORS	EXPER HANDLING SMALL CHILDREN
14	RECREATIONAL SUPERVISORS	EXPER RECREATIONAL GAMES
9	SALES CLERK	EXPER W CASH REGISTER
13	SECRETARY	EXPER W WORD PROCESS
3	ASSEMBLY, HAND STAMP	EXPER WORKING W HANDS
7	MECHANIC	EXPLAIN PROBLEMS
9	AUTO CLEANER	EYE FOR DETAIL
3	ASSEMBLY	EYE/HAND COOR
3	TRIMMER	EYE/HAND COOR
3	SIGN MAKERS	EYE/HAND COOR
3	ASSEMBLY/ENGRAVING	EYE/HAND COORD
13	LAUNDRY WORKER	FAST PACED
3	ASSEMBLY	FOLLOW DIRECTIONS
3	ASSEMBLY/PALLET	FOLLOW DIRECTIONS
2	EQUIP OPER	FOLLOW DIRECTIONS
2	LABORER	FOLLOW DIRECTIONS
8	FOOD SERVICE WORKERS	FOLLOW DIRECTIONS
14	MESSENGER	FOLLOW DIRECTIONS

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
5	CLERICAL	FOLLOW DIRECTIONS
6	SALES CLERK	FOLLOW DIRECTIONS
6	SHIPPING/RECEIVING	FOLLOW DIRECTIONS
9	DRIVER, TRUCK	FOLLOW DIRECTIONS
10	CLAIMS ASSIST	FILING
11	CLERICAL	FILING
14	CLERICAL	FILING
13	CLERICAL	FILING
14	CLERICAL	FILING
5	CLERICAL	FILING
13	CLERICAL	FILING
5	CLERICAL	FILING
12	CLERICAL	FILING
13	CLERICAL	FILING
10	FILE CLERK	FILING
12	INSURANCE CLERK	FILING
12	MEDICAL RECORDS CLERK	FILING
12	SECRETARY	FILING
2	ACCOUNT CLERK	FILING
5	ADMIN	FILING
13	CLERICAL	FILING
11	CLERICAL	FILING
4	CLERICAL	FILING
13	CLERICAL	FILING
13	CLERICAL	FILING
14	CLERICAL	FILING
6	CLERICAL	FILING
1	CLERICAL	FILING
6	CLERICAL	FILING
6	CLERICAL	FILING
2	CLERICAL	FILING
6	CLERICAL	FILING
13	CLERICAL	FILING
10	CLERICAL	FILING
13	CLERICAL	FILING
12	CLERICAL	FILING
14	CLERICAL	FILING
5	CLERICAL	FILING
13	CRT OPER	FILING
10	LIBRARY ASSIST	FILING
12	MEDICAL RECORDS CLERK	FILING
13	RECEPTIONIST	FILING
12	RECEPTIONIST	FILING
7	RECEPTIONIST	FILING
10	SECRETARY	FILING
13	SECRETARY	FILING
13	CLERICAL	FILING
4	CLERICAL	FILING
14	CLERICAL	FILING
14	CLERICAL	FILING
9	CLERICAL	FILING
13	RECEPTIONIST	FILING

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
13	SECRETARY	FILING
6	SECRETARY	FILING
10	CLERICAL	FILING
11	CLERICAL	FILING
13	CLERICAL	FILING
3	CLERICAL	FILING
13	SECRETARY	FILING
3	SECRETARY	FILING
11	SECRETARY	FILING
3	SECRETARY	FILING
13	CLERICAL	FILING
13	CLERICAL	FILING
7	MECHANIC	FIND ECONOMICAL SOLUTIONS
3	ASSEMBLY	FINGER DEXTERITY
3	TRIMMER	FINGER DEXTERITY
13	HOUSEKEEP	FINSTRU
4	BAKER HELPER	FOLLOW INSTRUCTIONS
7	DELIVERY	FOLLOW INSTRUCTIONS
13	FOOD SERVICE	FOLLOW INSTRUCTIONS
14	MESSENGER	FOLLOW INSTRUCTIONS
5	HOUSEKEEP	FOLLOW INSTRUCTIONS
13	JANITOR	FOLLOW INSTRUCTIONS
13	LAB ASSIST	FOLLOW INSTRUCTIONS
14	LABORER	FOLLOW INSTRUCTIONS
14	OPER	FOLLOW INSTRUCTIONS
2	APPRENTICE CARPENTER	FOLLOW INSTRUCTIONS
13	BOOKKEEP	FOLLOW INSTRUCTIONS
13	MESSENGER	FOLLOW INSTRUCTIONS
13	CLERICAL	FOLLOW INSTRUCTIONS
7	AUTO INSTALLERS	FINSTUCT
8	MANAGER	FIRING
13	MANAGER /SUPERVISOR	FIRST AID TRAINING
12	FOOD SERVICE	FOOD HANDLING
13	FOOD SERVICE	FOOD PREPARATION
8	SALAD COOK	FOOD PREPARATION
3	FOOD SERVICE	FOOD PREPARATION
12	DENTAL ASSIST	FORESIGHT
3	WAREHOUSE	FORK LIFT OPER
12	RECEPTIONIST	FRIENDLY
5	CLERICAL	FRIENDLY
11	DELIVERY	FRIENDLY
5	CLERICAL	GEN KNOWL
5	MECHANIC	GEN KNOWL EXPER
9	CLERICAL	GENERAL OFFICE
14	CLERICAL	GENERAL OFFICE ABIL
11	APPRENTICE PLUMBER	GEOMETRY
11	APPRENTICE SHEET METAL	GEOMETRY
11	APPRENTICE STEAM FITTER	GEOMETRY
3	BENCH WORKER	GEOMETRY
11	PRE-APPRENTICE SHEET METAL	GEOMETRY
11	PRE-APPRENTICE STEAM FITTER	GEOMETRY
7	SALES CLERK	GOOD APPEARANCE

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
10	FILE CLERK	GOOD ATTENDANCE
10	MICROFILM CLERK	GOOD ATTENDANCE
8	COOK	GOOD ATTIT
8	DISHWASHER	GOOD ATTIT
8	JANITOR	GOOD ATTIT
9	SALES CLERK	GOOD ATTIT W PUBLIC
6	DELIVERY	GOOD COMMUN
6	DRIVER	GOOD DRIVER RECORD
6	WAREHOUSE	GOOD DRIVING
9	CAR JOCKEY	GOOD DRIVING RECORD
6	DELIVERY	GOOD DRIVING RECORD
5	DRIVER	GOOD DRIVING RECORD
5	DRIVER, TRUCK	GOOD DRIVING RECORD
9	DRIVER, TRUCK	GOOD DRIVING RECORD
5	DRIVER/SCHOOL BUS	GOOD DRIVING RECORD
7	WAREHOUSE	GOOD DRIVING RECORD
11	DELIVERY	GOOD DRIVING RECORD
13	DRIVER, TRUCK	GOOD DRIVING RECORD
13	INSTALLER TRAINEE	GOOD DRIVING RECORD
9	LOT ATTENDANT	GOOD DRIVING RECORD
11	SHIPPING	GOOD DRIVING RECORD
5	DRIVER	GOOD DRIVING RECORD
4	PASTEUP/STRIPPER	GOOD EYE
4	INSPECTOR/PACKER	GOOD EYE/HAND COOR
13	APPRENTICE CARPENTER	GOOD EYE/HAND COOR
6	CLERICAL	GOOD GRADES
7	SALES CLERK	GOOD GRADES
13	APPRENTICE CARPENTER	GOOD HEALTH
12	JANITOR	GOOD JUDGEMENT
11	PUBLIC RECORD VERIFIER	GOOD MANNERS IN PUBLIC
6	SECRETARY	GOOD MEMORY
12	FOOD SERVICE	GOOD MENTAL/PHYSICAL HEALTH
12	NURSING ASSIST	GOOD MENTAL/PHYSICAL HEALTH
9	LOT ATTENDANT	GOOD PENMANSHIP
6	CLERICAL	GOOD PERSONAL APPEARANCE
6	DELIVERY	GOOD PERSONAL APPEARANCE
7	SALES CLERK	GOOD PERSONALITY
9	SALES CLERK	GOOD PERSONALITY
9	SALES CLERK	GOOD PERSONALITY
11	SALES CLERK	GOOD PERSONALITY
11	MECHANIC	GOOD PERSONALITY
14	JANITOR	GOOD PHYSICAL CONDITION
4	LABORER	GOOD PHYSICAL CONDITION
14	POLICE CADET	GOOD PHYSICAL CONDITION
14	LABORER STREET/SEWER MAINT	GOOD PHYSICAL CONDITION
14	MAINTENANCE	GOOD PHYSICAL CONDITION
14	SECURITY	GOOD PHYSICAL CONDITION
10	TELLER	GOOD PUBLIC RELAT
9	CASHIER/BOOKKEEP	GOOD SPELLING
9	SALES CLERK	GOOD SPELLING/HANDWRITING
9	CLERICAL	GOOD TYPING
8	SALAD COOK	GOOD USE OF EQUIP

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
9	RECEPTIONIST	GOOD VOICE
13	CLERICAL	GRAMMAR
10	RECEPTIONIST	GRAMMAR
4	TYPESETTER /STAMPING	GRAMMAR
10	WORD PROCESS	GRAMMAR
13	CLERICAL	GRAMMAR
14	CLERICAL	GRAMMAR
11	SECRETARY	GRAMMAR
14	WORD PROCESS OPER	GRAMMAR
4	BOOK PREPARATION	GRAMMAR
6	CLERICAL	GRAMMAR
13	CLERICAL	GRAMMAR
10	CLERICAL	GRAMMAR
10	CLERICAL	GRAMMAR
11	CLERICAL	GRAMMAR
3	CLERICAL	GRAMMAR
10	RECEPTIONIST	GRAMMAR
10	RECEPTIONIST	GRAMMAR
12	SECRETARY	GRAMMAR
10	STENOGRAPHERS	GRAMMAR
3	CLERICAL	GRAMMAR
4	CLERICAL	GRAMMAR
3	CLERICAL	GRAMMAR
10	LIBRARY ASSIST	GRAMMAR
13	CLERICAL	GRAMMAR
13	RECEPTIONIST	GRAMMAR
10	SECRETARY	GRAMMAR
11	CLERICAL	GRAMMAR
11	CLERICAL	GRAPHIC ARTS
5	LABORER	GREASING
10	TELLER	HANDLE CASH
7	CUSTOMER SERVICE	HANDLE COMPLAINTS W/O ESTABLIS
13	TEACHER AIDE	HANDLE GROUP OF CHILDREN CONST
13	BARTENDER	HANDLE MONEY
8	CASHIER	HANDLE MONEY
9	DRIVEWAY SALES	HANDLE MONEY
9	SALES CLERK	HANDLE MONEY
11	SALES CLERK	HANDLE MONEY
9	SALES CLERK	HANDLE MONEY
10	TELLER	HANDLE MONEY
9	DRIVEWAY SALES	HANDLE MONEY
13	SALES CLERK	HANDLE MONEY
7	SALES CLERK	HANDLE MONEY
9	SALES CLERK	HANDLE MONEY
10	TELLER	HANDLE MONEY
10	TELLER	HANDLE MONEY
8	DELIVERY	HANDLE MONEY
9	DRIVEWAY SALES	HANDLE MONEY
10	TELLER	HANDLE MONEY
10	TELLER	HANDLE MONEY
10	TELLER	HANDLING MONEY
13	PARTS CLERK	HEALTHY

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
13	MECHANIC	HEALTHY & STRONG
9	SALES CLERK	HELP CUSTOMER
11	WAREHOUSE	HELPFUL ATTIT
11	DELIVERY	HELPFUL ATTIT. CUSTOMER ORIENT
8	MANAGER	HIRING
13	MANAGER /SUPERVISOR	HONEST
7	SALES CLERK	HONESTY
13	MACHINIST TRAINEE	HONING MACHINES
1	LAWN CARE APPLICATOR	HORTICULTURAL KNOWL
5	CLERICAL	HUMAN REL
13	KITCHEN ATTENDANTS	HUMAN RELAT
12	SECRETARY	HUMAN RELAT
13	WAITPERSON	HUMAN RELAT
13	DESK CLERK	HUMAN RELAT
8	FOOD SERVICE	HUMAN RELAT
12	NURSING ASSIST	HUMAN RELAT
11	SALES CLERK	HUMAN RELAT
13	HOUSEKEEP	HUMNAN RELAT
7	BAGGERS	HUSTLE
6	TECHNICAL LABORER	HYDRAULIC SYSTEM SERVICE
4	PRODUCTION WORKER	INDUSTRIAL ARTS
9	SALES CLERK	INDUSTRIOUS
10	INSURANCE SALES	INDUSTRY KNOWL
9	SALES CLERK	INITIATE HELP TO CUSTOMER
9	LOT ATTENDANT	INITIATIVE
13	TEACHER AIDE	INSTRUCTIONAL STRATEGIES
9	SALES CLERK	INVENTORY
9	SALES CLERK	INVENTORY CONTROL
13	HOUSEKEEP	JANITORIAL
5	LABORER	JANITORIAL
13	MAINTENANCE	JANITORIAL
3	BENCH WORKER	JEWELERS SKILLS
14	EMERGENCY DISPATCHERS	KEEN RESPONSE TO EMERGENCY SIT
11	ERRAND PERSON	KEEP RECORDS
13	DATA ENTRY	KEYPUNCH
14	DATA ENTRY	KEYPUNCHING
6	ACCOUNT CLERK	KNOW BASIC ACCOUNTING
14	DRIVER, TRUCK	KNOW HOW TO OPER TRUCK/GRADER
4	DRIVER/PRESS HELPER	KNOW MECHANICAL
11	CLERICAL	KNOW OFFICE PROCEDURE
12	MEDICAL RECORDS CLERK	KNOWL ALPHABET
7	SALES CLERK	KNOWL ATHLETICS AND ATHLETIC S
13	MECHANIC HELPER	KNOWL AUTO ENGINE
3	TREE CUTTER	KNOWL CHAIN SAW
13	CAMP COUNSELOR	KNOWL CHILD DEVELOPMENT
13	CHILD CARE	KNOWL CHILD DEVELOPMENT
6	DRIVER	KNOWL CITY
13	JANITOR	KNOWL CLEANING METHODS
11	DATA ENTRY	KNOWL DATA TRAMISSION
6	DATA ENTRY	KNOWL EDP
14	MAINTENANCE	KNOWL ELECTRICITY
3	ELECTRONIC ASSEMBLY	KNOWL ELECTRONIC COMPONENTS

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
3	ELECTRONIC TEST	KNOWL ELECTRONIC COMPONENTS
14	MAINTENANCE	KNOWL ELECTRONICS
4	IMAGE ASSEMBLER	KNOWL FILMS/NEGATIVES/ETC
10	CLERICAL	KNOWL INSURANCE PRODUCT
11	DATA ENTRY	KNOWL KEYPUNCH MACHINE
4	AD/NEWS LAYOUT	KNOWL LAYOUT WORK
7	AUTO INSTALLERS	KNOWL MANUALS
14	MAINTENANCE	KNOWL MECHANICS
13	FOOD SERVICE	KNOWL NUTRITION
13	DRAFTSPERSON	KNOWL OF EXPECTATIONS
4	bAKER HELPER	KNOWL OF MEASUREMENTS
14	JANITOR	KNOWL OF MECHANICAL EQUIP
13	CLERICAL	KNOWL OFFICE MACHINES
11	SALES CLERK	KNOWL PHOTOGRAPHY
14	MAIL CLERK	KNOWL POSTAL REG
14	SHIPPING	KNOWL POSTAL REGULATIONS
7	SALES CLERK	KNOWL PRODUCT LINE
9	MECHANIC BICYCLE	KNOWL PRODUCTS
8	MANAGER	KNOWL RESTAURANT ACTIVITY
9	SALES	KNOWL SAILING
11	PRESS OPER	KNOWL SMALL PRESS OPER
14	OUTDOOR LABOR	KNOWL SMALL TOOLS
13	TECHNICIAN/LAB WORK	KNOWL TOOL/EQUIP
9	MOTORCYCLE SETUP	KNOWL TOOLS
10	MAINTENANCE	KNOWL TOOLS ETC
7	SALES CLERK	KNOWL TRADE UP LINE
10	WORD PROCESS	KNOWL WORD PROCESS EQUIP
3	SIGN MAKERS	LAYOUT TECHNIQUE
8	MANAGER ASSIST	LEADERSHIP
8	MANAGER	LEADERSHIP
12	DENTAL ASSIST	LEARN DENTAL VOCABULARY
7	WAREHOUSE	LEARN JOB
9	CASHIER/BOOKKEEP	LEGIBLE HANDWRITING
11	PUBLIC RECORD VERIFIER	LEGIBLE WRITER
11	VERIFIER/PROCESS	LEGIBLE WRITER
14	CLERICAL	LETTER WRITING
13	CLERICAL	LETTER-WRITING
6	WAREHOUSE	LIFT AND CARRY HEAVY OBJECTS
14	LABORER	LIFT HEAVY WEIGHTS
10	MAIL CLERK	LIFTING ABIL
14	LABORER STREET/SEWER MAINT	LIFTING ABIL
14	MAINTENANCE	LIFTING ABIL
3	JANITOR/MAINTENANCE	LIGHT MECHANICS & CONSTRUSTION
9	DRIVEWAY SALES	LIMITED KNOWL AUTO
9	LABORER	LIMITED KNOWL AUTO
13	HOUSEKEEP	LISTENING
5	PERMIT CLERK	LISTENING
3	LABORER	LOAD AND UNLOAD SUPPLIES/EQUIP
12	CLERICAL	LOGIC
6	SHIPPING/RECEIVING	LOGIC
13	CRT OPER	LOGICAL FORM DESIGN
13	HYDROLOGIC TECHNICIAN	LOVE OUTDOORS

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
12	RECEPTIONIST	LOYALTY
4	BINDERY	MACHINE APT
4	WEB PRESS	MACHINE APT
10	TELLER	MACHINE DEXTERITY
14	WORD PROCESS OPER	MACHINE TRANSCRIPTION
3	LABORER	MACHINERY SKILLS
13	CLERICAL	MAIL
5	JANITOR	MAINTENANCE
5	JANITOR	MAINTENANCE EXPER
7	SALES CLERK	MANNERS
11	CLIPPING	MANUAL DEXTERITY
13	HAIRDRESSER	MANUAL DEXTERITY
8	COOK	MANUAL DEXTERITY
2	LABORER	MANUAL SKILLS & APT
2	APPRENTICE	MANUAL SKILLS/APT
13	HAIRDRESSER	MARKETING
11	SALES CLERK	MARKETING
10	ACCOUNT CLERK	MATH
10	ACCOUNT CLERK	MATH
6	ACCOUNT CLERK	MATH
11	APPRENTICE PLUMBER	MATH
2	APPRENTICE PLUMBER	MATH
11	APPRENTICE SHEET METAL	MATH
11	APPRENTICE STEAM FITTER	MATH
2	APPRENTICE	MATH
6	ASSEMBLY	MATH
8	BARTENDER	MATH
10	BOOKKEEP	MATH
8	CASHIER	MATH
7	CASHIER	MATH
4	CLERICAL	MATH
5	CLERICAL	MATH
3	CLERICAL	MATH
11	COPY MACHINE OPER	MATH
12	DENTAL ASSIST	MATH
7	DRIVEWAY SALES	MATH
12	FILE CLERK	MATH
5	FORKLIFT DRIVER	MATH
13	LAB ASSIST	MATH
13	LAB ASSIST	MATH
2	LABORER	MATH
5	LABORER	MATH
5	LABORER	MATH
2	LABORER	MATH
6	MACHINIST TRAINEE	MATH
14	OPER	MATH
4	PARTS PICKER	MATH
11	PAYROLL CLERK	MATH
11	PRE-APPRENTICE SHEET METAL	MATH
11	PRE-APPRENTICE STEAM FITTER	MATH
9	SALES CLERK	MATH
7	SALES CLERK	MATH

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
7	SALES CLERK	MATH
9	SALES CLERK	MATH
7	SALES CLERK	MATH
6	SALES CLERK	MATH
7	SALES CLERK	MATH
9	SALES CLERK	MATH
9	SALES CLERK	MATH
10	TELLER	MATH
10	TELLER	MATH
10	TELLER	MATH
11	VOUCHER EXAMINER	MATH
8	WAITPERSON	MATH
8	WAITPERSON	MATH
8	WAITPERSON	MATH
4	WAREHOUSE	MATH
12	ACCOUNT CLERK	MATH
2	APPRENTICE BRICKLAYER	MATH
3	ASSEMBLY	MATH
13	BARTENDER	MATH
10	BOOKKEEP	MATH
8	CASHIER	MATH
14	CLERICAL	MATH
4	CLERICAL	MATH
10	DATA ENTRY	MATH
9	DRIVEWAY SALES	MATH
6	FOUNDRY	MATH
4	MACHINIST TRAINEE	MATH
13	MAIL CLERK	MATH
11	SALES CLERK	MATH
9	STOCK CLERK	MATH
10	TELLER	MATH
2	APPRENTICE STEAMFIT	MATH
3	BENCH WORKER	MATH
12	CLERICAL	MATH
13	DESK CLERK	MATH
7	DRIVER	MATH
9	DRIVER, TRUCK	MATH
13	HYDROLOGIC TECHNICIAN	MATH
10	PROOF DEPT.	MATH
7	SALES CLERK	MATH
12	SECRETARY	MATH
6	SHIPPING/RECEIVING	MATH
10	TELLER	MATH
7	WAREHOUSE	MATH
7	BAGGERS	MATH
3	CLERICAL	MATH
10	LOAN PROCESS	MATH
6	SALES CLERK	MATH
6	SHIPPING/RECEIVING	MATH
11	CLERICAL	MATH
3	CLERICAL	MATH
11	SECRETARY	MATH

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
3	ACCOUNT CLERK	MATH ABIL
7	SALES CLERK	MATURITY
4	PRINT OPER TRAINEE	MEASUREMENT ABIL
13	MAINTENANCE	MECH ABIL
2	APPRENTICE	MECHANICAL ABIL
9	DRIVEWAY SALES	MECHANICAL ABIL
13	HYDROLOGIC TECHNICIAN	MECHANICAL ABIL
13	INSTALLER TRAINEE	MECHANICAL ABIL
2	LABORER	MECHANICAL ABIL
13	MAINTENANCE ASSIST	MECHANICAL ABIL
13	MAINTENANCE WORKER	MECHANICAL ABIL
11	MECHANIC	MECHANICAL ABIL
14	POWER PLANT HELPER	MECHANICAL ABIL
9	SERVICE TECH	MECHANICAL ABIL
2	WAREHOUSE	MECHANICAL ABIL
11	WAREHOUSE	MECHANICAL ABIL
5	DRIVER, TRUCK	MECHANICAL ABIL
2	EQUIP OPER	MECHANICAL ABIL
7	SERVICE TECH	MECHANICAL ABIL
10	MAIL CLERK	MECHANICAL ABIL
2	APPRENTICE SHEET METAL	MECHANICAL APT
11	BINDERY/SHIPPING	MECHANICAL APT
4	MACHINIST TRAINEE	MECHANICAL APT
6	SERVICE TECH	MECHANICAL APT
6	DELIVERY	MECHANICAL APT
4	PARTS PICKER	MECHANICAL APT
3	ASSEMBLY	MECHANICAL APT
3	TRIMMER	MECHANICAL APT
10	MAINTENANCE	MECHANICAL APT KNOWL MOWING
3	PUNCH PRESS OPER	MECHANICAL DRAWING
4	PRINT OPER TRAINEE	MECHANICAL KNOWL
9	MOTORCYCLE SETUP	MECHANICAL SKILLS
6	MECHANIC ASSIST	MECHANICAL TRAINING
9	APPRENTICE MECHANIC	MECHANICAL UNDERSTANDING
5	FORKLIFT DRIVER	MECHANICS
12	MEDICAL TYPIST	MEDICAL VOCABULARY
9	CARWASH ATTENDANT	MEETING PEOPLE
9	CASHIER/BOOKKEEP	MEETING PEOPLE
3	RECEPTIONIST	MEETING PUBLIC
4	DRIVER	MEMORY
5	HOUSEKEEP	MEMORY
3	FOOD SERVICE	MENU PLANNING
2	APPRENTICE SHEET METAL	METAL
6	FOUNDRY	METALS
6	WELDER	METALS
4	CASING-IN	METICULOUSNESS
13	CLERICAL	MIMEO OPER
10	LAWN WORK	MOTIVATION
9	MECHANIC	MOTORCYCLE SETUP UNDERSTANDING
9	SALES CLERK	MOTORCYCLE/MECHANICAL UNDERSTA
7	SALES CLERK	MUSIC BACKGROUND
7	RECEPTIONIST	MUSIC BACKGROUND

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
2	APPRENTICE	MUST ATTNED VOCATIONAL TRAININ
6	PAINT MIXER	NEAT
9	DRIVER, TRUCK	NEAT APPEARNACE
9	CAR JOCKEY	NEAT PERSONALITY AND APPEARANC
6	WAREHOUSE	NEATNESS
6	CLERICAL	NEATNESS
7	WAREHOUSE	NEATNESS
6	SECRETARY	NEATNESS
11	SECRETARY	NEATNESS OF DRESS
10	FILE CLERK	NUMBER SEQUENCE
3	CLERICAL	NUMBER SKILLS
3	LABORER	NUMBER SKILLS
5	METER READING	NUMBERS
10	TELLER	NUMBERS ACCURACY
13	DESK CLERK	NUMERICAL
13	PORTER	NUMERICAL
12	NURSING ASSIST TRANSPORT	NURSING ASSIST EXPER
13	FOOD SERVICE	NUTRITION
7	BAKER HELPER	ODD HOURS
3	CLERICAL	OFFICE MACH
11	CLERICAL	OFFICE MACHINE
13	CLERICAL	OFFICE MACHINES
10	CLERICAL	OFFICE MACHINES
4	CLERICAL	OFFICE MACHINES
10	CLERICAL	OFFICE MACHINES
13	CLERICAL	OFFICE MACHINES
11	SECRETARY	OFFICE MACHINES
6	CLERICAL	OFFICE MACHINES
13	CLERICAL	OFFICE MACHINES
10	SECRETARY	OFFICE MACHINES
14	CLERICAL	OFFICE MACHINES
13	SECRETARY	OFFICE MACHINES
10	CLERICAL	OFFICE PROCEDURES
13	CLERICAL	OFFICE SKILLS
2	MANAGER TRAINEE	OFFICE SKILLS
9	MECHANIC	OIL CHANGES
9	DRIVEWAY SALES	OIL CHANGES
7	SALES CLERK	OPER ADDING MACHINE
7	SALES CLERK	OPER CASH REGISTER
7	SALES CLERK	OPER CASH REGISTER
13	MESSENGER	OPER COPY MACHINE
1	LABORER	OPER FARM EQUIP
14	LABORER	OPER FORK LIFT
13	CLERICAL	OPER OFFICE MACHINES
13	TEACHER AIDE	OPER OFFICE MACHINES
14	LABORER	OPER SANITATION TRUCK
13	MACHINIST TRAINEE	OPER SURFACE GRINDERS
10	CLERICAL	ORDER NUMBERICALLY
10	MAIL CLERK	ORDER NUMERICALLY
3	SECRETARY	ORDER SUPPLIES
13	RECEPTIONIST	ORGANIZATION
7	WAREHOUSE	ORGANIZATION

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
3	CLERICAL	ORGANIZATION
11	CLERICAL	ORGANIZATION
13	FOOD SERVICE	ORGANIZATION
8	MANAGER ASSIST	ORGANIZATION
8	MANAGER	ORGANIZATION
12	RECEPTIONIST	ORGANIZATION
11	SECRETARY	ORGANIZATION
3	SECRETARY	ORGANIZATION
3	CLERICAL	ORGANIZATION
3	LABORER	ORGANIZATION
13	DESK CLERK	ORGANIZATIONAL RELAT
4	COVER MAKING	ORGANIZED WORK FLOW
13	CLERICAL	ORGANIZING
13	SECRETARY	ORGANIZING
5	ADMIN	ORGANIZING PROJECTS
9	SALES CLERK	OUTGOING
5	METER READING	OUTSIDE WORK ALL WEATHER
9	MECHANIC BICYCLE	OVERHAUL MULTI-SPEED HUBS
1	MANAGER	PAPER WORK
3	PHOTO WORK	PASTE UP
3	LABORER	PATIENCE
6	CLERICAL	PENMANSHIP
10	CLERICAL	PENMANSHIP
4	TYPESETTER	PENMANSHIP
6	APPRENTICE MECHANIC	PENMANSHIP
4	PRINT OPER TRAINEE	PENMANSHIP
12	RECEPTIONIST	PEOPLE SKILLS
10	SALES CLERK	PEOPLE SKILLS
9	SALES CLERK	PEOPLE SKILLS
10	BOOKKEEP	PEOPLE SKILLS
10	RECEPTIONIST	PEOPLE SKILLS
10	TELLER	PEOPLE SKILLS
10	TELLER	PEOPLE SKILLS
13	RECEPTIONIST	PEOPLE SKILLS
9	DELIVERY	PEOPLE SKILLS
13	BARTENDER	PERSONALITY
4	BINDERY	PERSONALITY
4	PRESS OPER	PERSONALITY
13	SALES CLERK	PERSONALITY
4	SALES CLERK	PERSONALITY
7	WAREHOUSE	PERSONALITY
13	BARTENDER	PERSONALITY
13	HAIRDRESSER	PERSONALITY
9	RECEPTIONIST	PERSONALITY
11	ERRAND PERSON	PHOTOCOPYING
11	LABORER	PHYSICALLY STRONG
14	LABORER	PHYSICAL AGILITY
13	LAUNDRY WORKER	PHYSICAL WORK
6	LABORER	PHYSICAL/MANUAL DEXTERITY
4	LABORER	PHYSICALLY FIT
4	SHIPPING/RECEIVING	PHYSICALLY FIT
10	CLERICAL	PLAN AHEAD

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
6	DELIVERY	PLEASANT ATTIT
9	DRIVER, TRUCK	PLEASING PERSONALITY
13	MAINTENANCE	PLUMBING
14	MESSENGER	POSITIVE ATTIT
14	COMMODITY GRADER	POSITIVE ATTIT
14	LABORER	POSITIVE ATTIT
13	CLERICAL	PREPARE MAILINGS
10	CRT OPER	PREVIOUS TYPING
3	WELDER	PRIDE IN JOB
3	WELDER	PRIDE IN PRODUCT
13	CLERICAL	PRIDE IN WORK
12	HOUSEKEEP	PRIOR CLEANING EXPER
7	BAKER	PRIOR EXPER
7	COOK	PRIOR EXPER
12	FOOD SERVICE	PRIOR EXPER
14	INVESTIGATOR	PRIOR EXPER
7	SALES CLERK	PRIOR EXPER
7	WAITPERSON	PRIOR EXPER
12	FOOD SERVICE	PRIOR EXPER W FOODS
12	NURSING ASSIST	PRIOR NURSING ASSIST EXPER
4	PASTEUP/STRIPPER	PRIOR OFFSET PRESS EXPER
7	SALES CLERK	PRIOR RETAIL EXPER
7	MANAGER JR ASSIST	PRIOR SUPERVISORY EXPER
2	LABORER	PROBLEM SOLVING
10	TELLER	PROBLEM SOLVING
8	FOOD SERVICE	PROBLEM SOLVING
2	SALES CLERK	PRODUCT KNOWL
10	MAINTENANCE	PROMPT
13	PHONE BANK OPER	PRONOUNCE NAMES
3	SECRETARY	PROOF READING
14	CLERICAL	PROOFREAD
14	WORD PROCESS	PROOFREADING
13	CLERICAL	PROOFREADING
11	CLERICAL	PROOFREADING
10	MAINTENANCE	PRUNING
11	LABORER	PUNCTUAL
11	LABORER	PUNCTUAL
5	DRIVER	PUNCTUALITY
13	CLERICAL	PUNCTUATION
10	SECRETARY	PUNCTUATION
3	CLERICAL	PUNCTUATION
13	CLERICAL	PUNCTUATION
4	CLERICAL	QUICK LEARNERS
6	APPRENTICE MECHANIC	READ
8	CASHIER	READ
8	COOK	READ
8	COOK	READ
11	DATA ENTRY	READ
9	DRIVER, TRUCK	READ
13	HOUSEKEEP	READ
8	JANITOR	READ
11	LABORER	READ

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
13	MAIL CLERK	READ
13	MECHANIC	READ
12	NURSING ASSIST	READ
8	SALES CLERK	READ
6	WAREHOUSE	READ
7	DELIVERY	READ
14	LABORER	READ
13	PARTS CLERK	READ
8	WAITPERSON	READ
11	CLERICAL	READ
14	LABORER	READ
13	PHONE BANK OPER	READ
11	SHIPPING	READ
9	DELIVERY	READ MAPS
7	LABORER	READ ORDERS
12	FOOD SERVICE	READ ORDERS
2	CARPENTER HELPER	READ RULER
2	APPRENTICE CARPENTER	READ SQUARE/RULER
5	APPRENTICE MECHANIC	READING
9	DELIVERY	READING
13	DESK CLERK	READING
7	DRIVER	READING
9	STOCK CLERK	READING
6	WAREHOUSE	READING
6	WAREHOUSE	READING
7	WAREHOUSE	READING
6	CLERICAL	READING
14	RECEPTIONIST	READING
13	CLERICAL	READING
13	TEACHER AIDE	READING
9	TELEPHONE SALES	READING MATH
14	ADMIN	RECEPTIONIST
14	CLERICAL	RECEPTIONIST
14	CLERICAL	RECEPTIONIST
10	ADMIN	RECEPTIONIST SKILLS
11	CLERICAL	RECORD KEEP
10	MAINTENANCE	RECORD KEEP
13	RECEPTIONIST	RECORD KEEP
11	SECRETARY	RECORD KEEP
14	CLERICAL	RECORD KEEPING
13	MANAGER /SUPERVISOR	RECORD KEEPING
3	CLERICAL	RECORD KEEPING
13	RECEPTIONIST	RECORD KEEPING
6	DRIVER	RELIABILITY
7	SALES CLERK	RELIABILITY
6	WAREHOUSE	RELIABILITY
6	CLERICAL	RELIABILITY
10	MAINTENANCE	RELIABLE
10	CLERICAL	REMEMBER DETAILS
13	LAUNDRY WORKER	REPETITION
10	LAWN WORK	RESPONSIBILITY
5	DRIVER	RESPONSIBILITY

Skills Required/Alphabetical Listir

SIC CLASS	Job Title	Skill Identified
5	JANITOR	RESPONSIBLE
9	CLERICAL	RESPONSIBLE
6	DELIVERY	RESPONSIBLE
13	MECHANIC	RESPONSIBLE
13	PARTS CLERK	RESPONSIBLE
5	LABORER	RESPONSIBLE
3	LABORER	RIGHT ATTIT
13	MESSENGER	RUN ERRANDS
11	ERRAND PERSON	RUN ERRANDS
13	FOOD SERVICE	SAFE USE FOOD SERVICE EQUIP
3	TREE CUTTER	SAFETY
7	AUTO INSTALLERS	SAFETY
9	SALES	SAILBOATS
5	TRAVEL AGENT	SALES
7	SALES CLERK	SALES EXPER
7	SALES CLERK	SALES EXPER
1	LAWN CARE APPLICATOR	SALES TECHNIQUES
9	SALES CLERK	SALES TECHNIQUES
10	INSURANCE SALES	SALES TECHNIQUES
13	FOOD SERVICE	SANITARY PROCEDURES
13	KITCHEN UTILITY	SANITATION
13	LAB ASSIST	SCIENCE
9	CLERICAL	SECRETARIAL
11	WAREHOUSE	SELF DIRECT
3	LABORER	SELF-STARTING
10	CLERICAL	SELF-STARTING
9	SALES CLERK	SELLING
8	SALES CLERK	SENSE OF SELF WORTH
13	DRAFTSPERSON	SENSITIVITY OF RELAT FIELDS
10	TELLER	SHARE DRAFT PROCESS
2	APPRENTICE SHEET METAL	SHOP
2	APPRENTICE STEAMFIT	SHOP
3	ASSEMBLY	SHOP COURSES
3	PUNCH PRESS OPER	SHOP COURSES
5	LABORER	SHOP SKILLS
13	SECRETARY	SHORTHAND
6	SECRETARY	SHORTHAND
10	SECRETARY	SHORTHAND
13	CLERICAL	SHORTHAND
13	CLERICAL	SHORTHAND
5	CLERICAL	SHORTHAND
10	CLERICAL	SHORTHAND
13	CLERICAL	SHORTHAND
10	LOAN PROCESS	SHORTHAND
14	PROGRAM ASSIST	SHORTHAND
11	SECRETARY	SHORTHAND
13	SECRETARY	SHORTHAND
10	SECRETARY	SHORTHAND
14	SECRETARY	SHORTHAND
5	CLERICAL	SHORTHAND
5	CLERICAL	SHORTHAND
6	CLERICAL	SHORTHAND

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
2	CLERICAL	SHORTHAND
13	CLERICAL	SHORTHAND
13	SECRETARY	SHORTHAND
14	SECRETARY 1	SHORTHAND 80 W15%ERROR
14	SECRETARY 2	SHORTHAND 80 W5%ERROR
2	CARPENTER	SKILLED W TOOLS
2	APPRENTICE	SLIDE RULE
2	LABORER	SLIDE RULE
9	DRIVEWAY SALES	SNOW-SHOVEL
9	LABORER	SNOW-SHOVEL
5	CLERICAL	SORTING
6	WAREHOUSE	SPATIAL RELATIONSHIPS
8	SALES CLERK	SPEAK
7	RECEPTIONIST	SPEAK ABIL
13	ANIMAL CARETAKER	SPEAK W PUBLIC
5	PERMIT CLERK	SPEAKING
13	RECEPTIONIST	SPEAKING
8	FOOD SERVICE	SPEAKING
11	RECEPTIONIST	SPEAKING ABIL
4	CLERICAL	SPEAKING ABIL
13	DESK CLERK	SPEECH
13	PORTER	SPEECH
10	MICROFILM CLERK	SPEED MOVING PAPERS
3	ASSEMBLY, HAND STAMP	SPELL
7	RECEPTIONIST	SPELL
11	VERIFIER/PROCESS	SPELL
13	CLERICAL	SPELLING
10	CLERICAL	SPELLING
13	CLERICAL	SPELLING
11	SECRETARY	SPELLING
4	BOOK PREPARATION	SPELLING
13	CLERICAL	SPELLING
13	CLERICAL	SPELLING
14	CLERICAL	SPELLING
10	CLERICAL	SPELLING
13	CLERICAL	SPELLING
13	CLERICAL	SPELLING
10	CLERICAL	SPELLING
14	CLERICAL	SPELLING
7	CLERICAL	SPELLING
12	CLERICAL	SPELLING
14	CLERICAL	SPELLING
10	CLERICAL	SPELLING
3	CLERICAL	SPELLING
11	CLERICAL	SPELLING
3	CLERICAL	SPELLING
3	CLERICAL	SPELLING
10	DATA ENTRY	SPELLING
14	DATA ENTRY	SPELLING
5	FORKLIFT DRIVER	SPELLING
10	LOAN CLERK	SPELLING
10	RECEPTIONIST	SPELLING

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
12	SECRETARY	SPELLING
6	SECRETARY	SPELLING
3	SECRETARY	SPELLING
13	TEACHER AIDE	SPELLING
4	TYPESETTER /STAMPING	SPELLING
6	CLERICAL	SPELLING
3	CLERICAL	SPELLING
4	CLERICAL	SPELLING
14	CLERICAL	SPELLING
14	CLERICAL	SPELLING
10	LIBRARY ASSIST	SPELLING
10	SECRETARY	SPELLING
6	CLERICAL	SPELLING
11	DATA ENTRY	SPELLING
5	DRIVER, TRUCK	SPELLING
13	RECEPTIONIST	SPELLING
10	SECRETARY	SPELLING
10	STENOGRAPHERS	SPELLING
11	CLERICAL	SPELLING
13	CLERICAL	SPELLING
3	PAINTER	SPRAY PAINT EFFICIENTLY
14	STATE CIVIL SER	STATE LAW PROHIBITS REQUIRING
10	CLERICAL	STENOGRAPHIC
11	SECRETARY	STENOGRAPHIC
13	PARTS CLERK	STRENGTH
6	LABORER	STRONG BACKS
3	WELDER	STRONG WORK ETHIC
3	DRAFTSPERSON	STRUCTURAL STEEL DETAILING
9	DRIVEWAY SALES	SUBTRACT
1	MANAGER	SUPERVISE PEOPLE
7	SALES CLERK	TAKE INVENTORY
8	MANAGER	TEACH OTHERS
13	INSTALLER TRAINEE	TECHNICAL KNOWL
7	SALES CLERK	TECHNICAL UNDERSTANDING
11	CLERICAL	TELEPHONE
12	CLERICAL	TELEPHONE
11	ERRAND PERSON	TELEPHONE
13	PHONE BANK OPER	TELEPHONE
10	RECEPTIONIST	TELEPHONE
10	RECEPTIONIST	TELEPHONE
11	RECEPTIONIST	TELEPHONE
10	RECEPTIONIST	TELEPHONE
13	SECRETARY	TELEPHONE
5	TRAVEL AGENT	TELEPHONE
9	CASHIER/BOOKKEEP	TELEPHONE
13	CLERICAL	TELEPHONE
9	CLERICAL	TELEPHONE
12	MEDICAL RECORDS CLERK	TELEPHONE
12	RECEPTIONIST	TELEPHONE
3	SIGN MAKERS	TELEPHONE
10	TELLER	TELEPHONE
4	CLERICAL	TELEPHONE

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
4	CLERICAL	TELEPHONE
13	CLERICAL	TELEPHONE
3	CLERICAL	TELEPHONE
5	RECEPTIONIST	TELEPHONE
3	RECEPTIONIST	TELEPHONE
13	SECRETARY	TELEPHONE
11	SECRETARY	TELEPHONE
13	SECRETARY	TELEPHONE
14	SECRETARY	TELEPHONE
5	ADMIN	TELEPHONE
14	ADMIN	TELEPHONE
13	CLERICAL	TELEPHONE
13	RECEPTIONIST	TELEPHONE
10	SECRETARY	TELEPHONE
11	VERIFIER/PROCESS	TELEPHONE
6	CLERICAL	TELEPHONE
10	CLERICAL	TELEPHONE
13	CLERICAL	TELEPHONE
3	SECRETARY	TELEPHONE
10	CLERICAL	TELEPHONE
3	CLERICAL	TELEPHONE
10	PROOF DEPT.	TEN KEY ADDING MACHINE
3	ELECTRONIC TEST	TEST EQUIPMENT
11	LABORER	THINK
10	INSURANCE SALES	TIME MANAGEMENT
4	BINDERY	TRAINABLE
4	PRESS OPER	TRAINABLE
4	SALES CLERK	TRAINABLE
6	SALES	TRAINING
13	MAINTENANCE	TRAINING IN ELECTRONICS
13	SECRETARY	TRANSCRIPTION
11	SECRETARY	TRANSCRIPTION
10	CLERICAL	TRANSCRIPTION ABIL
14	LABORER	TRUCK MAINTENANCE
5	LABOROR	TRUCK WASHING
12	HOUSEKEEP	TRUSTWORTHY
12	NURSING ASSIST	TRUSTWORTHY
9	MECHANIC	TUNEUPS
10	CLERICAL	TYPE 40
3	PHOTO WORK	TYPESETTING
2	ACCOUNT CLERK	TYPING
5	ADMIN	TYPING
10	ADMIN	TYPING
13	CLERICAL	TYPING
13	CLERICAL	TYPING
11	CLERICAL	TYPING
13	CLERICAL	TYPING
14	CLERICAL	TYPING
6	CLERICAL	TYPING
3	CLERICAL	TYPING
4	CLERICAL	TYPING
4	CLERICAL	TYPING

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
6	CLERICAL	TYPING
10	CLERICAL	TYPING
4	CLERICAL	TYPING
10	CLERICAL	TYPING
10	CLERICAL	TYPING
4	CLERICAL	TYPING
14	CLERICAL	TYPING
3	CLERICAL	TYPING
14	CLERICAL	TYPING
10	CLERICAL	TYPING
5	CLERICAL	TYPING
5	CLERICAL	TYPING
13	CLERICAL	TYPING
14	CLERICAL	TYPING
6	CLERICAL	TYPING
1	CLERICAL	TYPING
6	CLERICAL	TYPING
6	CLERICAL	TYPING
2	CLERICAL	TYPING
6	CLERICAL	TYPING
13	CLERICAL	TYPING
11	CLERICAL	TYPING
14	CLERICAL	TYPING
4	CLERICAL	TYPING
10	CLERICAL	TYPING
13	CLERICAL	TYPING
13	CLERICAL	TYPING
6	CLERICAL	TYPING
13	CLERICAL	TYPING
13	CLERICAL	TYPING
5	CLERICAL	TYPING
14	CLERICAL	TYPING
10	CLERICAL	TYPING
13	CLERICAL	TYPING
11	CLERICAL	TYPING
14	CLERICAL	TYPING
14	CLERICAL	TYPING
13	CLERICAL	TYPING
13	CLERICAL	TYPING
9	CLERICAL	TYPING
9	CLERICAL	TYPING
10	CLERICAL	TYPING
6	CLERICAL	TYPING
4	CLERICAL	TYPING
10	CLERICAL	TYPING
13	CLERICAL	TYPING
12	CLERICAL	TYPING
14	CLERICAL	TYPING
5	CLERICAL	TYPING
14	CLERICAL	TYPING
4	CLERICAL	TYPING
3	CLERICAL	TYPING

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
13	CLERICAL	TYPING
9	CLERICAL	TYPING
7	CLERICAL	TYPING
12	CLERICAL	TYPING
14	CLERICAL	TYPING
10	CLERICAL	TYPING
3	CLERICAL	TYPING
11	CLERICAL	TYPING
3	CLERICAL	TYPING
3	CLERICAL	TYPING
14	COMPUTER OPER	TYPING
14	DATA ENTRY	TYPING
10	DATA ENTRY	TYPING
10	DATA ENTRY	TYPING
14	DATA ENTRY	TYPING
11	DATA ENTRY	TYPING
10	LIBRARY ASSIST	TYPING
10	LOAN CLERK	TYPING
10	LOAN CLERK	TYPING
10	LOAN PROCESS	TYPING
5	PASSENGER SERVICE AGENT	TYPING
10	RECEPTION	TYPING
13	RECEPTIONIST	TYPING
13	RECEPTIONIST	TYPING
3	RECEPTIONIST	TYPING
10	RECEPTIONIST	TYPING
12	RECEPTIONIST	TYPING
11	RECEPTIONIST	TYPING
10	RECEPTIONIST	TYPING
12	RECEPTIONIST	TYPING
7	RECEPTIONIST	TYPING
5	RESERVATIONS AGENT	TYPING
13	SECRETARY	TYPING
10	SECRETARY	TYPING
11	SECRETARY	TYPING
11	SECRETARY	TYPING
12	SECRETARY	TYPING
10	SECRETARY	TYPING
10	SECRETARY	TYPING
13	SECRETARY	TYPING
10	SECRETARY	TYPING
11	SECRETARY	TYPING
12	SECRETARY	TYPING
12	SECRETARY	TYPING
10	SECRETARY	TYPING
10	SECRETARY	TYPING
14	SECRETARY	TYPING
6	SECRETARY	TYPING
3	SECRETARY	TYPING
13	TEACHER AIDE	TYPING
10	TELLER	TYPING
10	TELLER	TYPING

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
10	TELLER	TYPING
4	TYPESETTER	TYPING
4	TYPESETTER	TYPING
11	VERIFIER/PROCESS	TYPING
6	WORD PROCESS	TYPING
14	WORD PROCESS	TYPING
14	WORD PROCESS OPER	TYPING
11	WORD PROCESS	TYPING
14	ACCOUNT CLERK	TYPING
14	ADMIN	TYPING
6	BOOKKEEP	TYPING
10	BOOKKEEP	TYPING
10	BOOKKEEP	TYPING
12	CLERICAL	TYPING
5	CLERICAL	TYPING
13	CLERICAL	TYPING
5	CLERICAL	TYPING
5	CLERICAL	TYPING
12	CLERICAL	TYPING
13	CLERICAL	TYPING
13	CLERICAL	TYPING
10	CLERICAL	TYPING
11	DATA ENTRY	TYPING
12	INSURANCE CLERK	TYPING
10	PROOF DEPT.	TYPING
10	RECEPTIONIST	TYPING
11	RECEPTIONIST	TYPING
10	RECEPTIONIST	TYPING
10	RECEPTIONIST	TYPING
6	SECRETARY	TYPING
13	SECRETARY	TYPING
10	SECRETARY	TYPING
10	TELLER	TYPING
10	TELLER	TYPING
10	TELLER	TYPING
10	TELLER	TYPING
10	WORD PROCESS	TYPING
10	BOOKKEEP	TYPING
13	CLERICAL	TYPING
13	CLERICAL	TYPING
3	CLERICAL	TYPING
10	CLERICAL	TYPING
11	DATA ENTRY	TYPING
12	MEDICAL RECORDS CLERK	TYPING
12	MEDICAL RECORDS CLERK	TYPING
9	RECEPTIONIST	TYPING
10	RECEPTIONIST	TYPING
13	RECEPTIONIST	TYPING
13	DATA ENTRY	TYPING
11	SECRETARY	TYPING
13	CLERICAL	TYPING
12	RECEPTIONIST	TYPING 35

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
14	CLERICAL	TYPING 40
10	LOAN CLERK	TYPING 40
10	TELEPHONE OPER	TYPING 40
10	TELLER	TYPING 40
14	WORD PROCESS OPER	TYPING 40
10	MEMBER SERVICES CLERK	TYPING 40
10	TELLER	TYPING 40
14	CLERICAL	TYPING 45
13	CLERICAL	TYPING 45
4	CLERICAL	TYPING 45
14	CLERICAL	TYPING 45
10	CLERICAL	TYPING 45
14	PROGRAM ASSIST	TYPING 45
14	WORD PROCESS OPER	TYPING 45
10	CLERICAL	TYPING 45
13	CRT OPER	TYPING 50
13	RECEPTIONIST	TYPING 50
14	SECRETARY 1	TYPING 50
10	STENOGRAPHERS	TYPING 50
5	TRAVEL AGENT	TYPING 50
13	CLERICAL	TYPING 55
14	CLERICAL	TYPING 55
13	TEACHER AIDE	TYPING 55
10	WORD PROCESS	TYPING 55
12	SECRETARY	TYPING 55
13	CLERICAL	TYPING 60
13	CLERICAL	TYPING 60
13	CLERICAL	TYPING 60
5	RECEPTIONIST	TYPING 60
14	SECRETARY 2	TYPING 60
11	SECRETARY	TYPING 60
3	SECRETARY	TYPING 60
11	CLERICAL	TYPING 65
11	SECRETARY	TYPING 65
13	CLERICAL	TYPING 70
11	WORD PROCESS	TYPING 80
9	SALES CLERK	UNDERSTANDING
2	TILE FINISHER	UNION MEMBERSHIP
2	TILE SETTER	UNION MEMBERSHIP
11	ERRAND PERSON	USE WORD PROCESS
13	DATA ENTRY	VARITYPER
8	BARTENDER	VERB
11	CLERICAL	VERB
11	SECRETARY	VERB
14	INSPECTOR/REGULATING	VERB/WRIT ABIL
13	MANAGER /SUPERVISOR	VERB/WRIT COMMUN
11	CLERICAL	VOCABULARY
11	SECRETARY	VOCABULARY
13	FOOD SERVICE	WAITS SKILLS
14	LIFEGUARD	WATER SAFETY CERTIFICATES
3	PUNCH PRESS OPER	WELDING
9	MECHANIC BICYCLE	WHEELS

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
11	LABORER	WILLING TO LEARN
7	SALES CLERK	WILLING TO LEARN
7	WAREHOUSE/DELIVERY	WILLING TO LEARN
3	LABORER	WILLING TO LEARN
14	COMMODITY GRADER	WILLING TO LEARN/LISTEN
14	LABORER	WILLING TO LEARN/LISTEN
3	LABORER	WILLING TO WORK
2	LABORER	WILLING TO WORK
7	SALES CLERK	WILLING TO WORK
7	SALES CLERK	WILLING TO WORK
7	SALES CLERK	WILLING TO WORK
7	WAREHOUSE/DELIVERY	WILLING TO WORK
8	COOK	WILLINGNESS TO LEARN
8	DISHWASHER	WILLINGNESS TO LEARN
8	JANITOR	WILLINGNESS TO LEARN
13	APPRENTICE CARPENTER	WILLINGNESS TO LEARN
2	APPRENTICE	WILLINGNESS TO WORK
5	LABORER	WILLINGNESS TO WORK
11	LABORER	WILLINGNESS TO WORK
13	APPRENTICE CARPENTER	WILLINGNESS TO WORK
4	MACHINIST TRAINEE	WOOD WORKING
13	MANAGER /SUPERVISOR	WOODWORK ABIL
14	CLERICAL	WORD PROCESS
14	CLERICAL	WORD PROCESS
6	BOOKKEEP	WORD PROCESS
2	CLERICAL	WORD PROCESSING
5	DRIVER	WORK ETHIC
5	HOUSEKEEP	WORK ETHIC
5	LABORER	WORK ETHIC
5	LABORER	WORK ETHIC
5	CLERICAL	WORK ETHIC
4	TYPESETTER	WORK ETHIC
3	LABORER	WORK IN ALL WEATHER
3	ASSEMBLY/PALLET	WORK ON OWN
6	WAREHOUSE	WORK W OTHERS
6	CLERICAL	WORK W OTHERS
7	WAREHOUSE	WORK W OUT SUPERVISION
6	APPRENTICE MECHANIC	WRITING SKILLS
9	DRIVER, TRUCK	WRITING SKILLS
13	HOUSEKEEP	WRITING SKILLS
6	WAREHOUSE	WRITING SKILLS
13	CLERICAL	WRITING SKILLS
11	SECRETARY	WRITING SKILLS
14	CLERICAL	WRITING SKILLS
6	CLERICAL	WRITING SKILLS
9	DRIVEWAY SALES	WRITING SKILLS
11	LABORER	WRITING SKILLS
12	NURSING ASSIST	WRITING SKILLS
8	SALES CLERK	WRITING SKILLS
13	DESK CLERK	WRITING SKILLS
7	DRIVER	WRITING SKILLS
9	SALES CLERK	WRITING SKILLS

Skills Required/Alphabetical Listing

SIC CLASS	Job Title	Skill Identified
7	WAREHOUSE	WRITING SKILLS
3	ASSEMBLY	WRITING SKILLS
4	CLERICAL	WRITING SKILLS
13	CLERICAL	WRITING SKILLS

ATTACHMENT C - EMPLOYERS SURVEY

6. Training Programs for New Hires

(Alphabetical Listing)

DATA ANALYSIS -- EMPLOYERS SURVEY

ALPHABETICAL LISTING - TRAINING PROGRAMS FOR NEW HIRES

Prepared by:

The Greater Madison Task Force

for Planning Occupational Skills Education

The Survey of Employers conducted by the Greater Madison Task Force for Planning Occupational Skills Education sought information about training programs that area employers conduct for new hires. The survey asked two questions about these training programs. The first asked if the employer conducted a formal training program for new hires which required a check indicating either "yes" or "no." If the answer was "yes," the second question asked the respondent to describe the training program.

Of the 595 respondents who provided usable information, 269 indicated the presence of a formal training program for new hires. The other 326 employers either indicated they did not have a training program for new hires or did not respond to this question.

Of the 269 employers who indicated they had a formal training program for new hires, 43 did not explain their program. The remaining 226 described their training program.

Program descriptions varied greatly. Most employers described the training process, e.g. older worker trains newly hired worker, etc. Some employers identified a group which received training, e.g. for tellers. A few employers listed the training materials used in their program, e.g. manuals, films, etc.

Most employers described only one training program. However, some employers described multiple training programs. In analyzing the responses, each training program was identified separately. (If a firm described four training programs, each program is list separately; and each employer is listed four times.) As a result, 335 different training program descriptions are listed below.

In the listing below, training programs are arranged in alphabetical order. The number in the first column is the respondent's "id" number.

ID	DESCRIPTION OF TRAINING PROGRAM
178	AMERICAN INSTITUTE OF BANKING
676	APPRENTICE PROGRAM
421	APPRENTICE PROGRAM
445	APPRENTICE PROGRAM
165	APPRENTICE PROGRAM
236	APPRENTICE PROGRAM
462	APPRENTICE PROGRAM
235	APPRENTICE PROGRAM
39	APPRENTICE PROGRAM
242	APPRENTICE PROGRAM
131	APPRENTICE PROGRAM
486	APPRENTICE PROGRAM
474	APPRENTICE PROGRAM
202	APPRENTICE PROGRAM
279	APPRENTICE PROGRAM
206	APPRENTICE PROGRAM
253	APPRENTICE PROGRAM 2 YEARS
169	APPRENTICE PROGRAM 3 YEARS
245	APPRENTICE PROGRAM 4 YEARS
268	APPRENTICE PROGRAM 6240 HRS
212	CAREER DEVELOPMENT PROGRAM
495	CASSETTES
536	CASSETTES
423	CASSETTES
162	CLASSROOM TRAINING
803	COMMUNICATIONS
301	CONSISTENT
516	CRITIQUES
215	CONTINUOUS TRAINING - IF REQUESTED
574	CUSTOMER SERVICE AND AWARENESS
23	DISTRICT TRAINING SESSIONS
406	EVALUATIONS
280	EXAM
265	EXPLANATION
535	FACTORY/MANUF. TRAINING SCHOOL
669	FACTORY/MANUF. TRAINING SCHOOL
538	FACTORY/MANUF. TRAINING SCHOOL
661	FACTORY/MANUF. TRAINING SCHOOL
72	FACTORY/MANUF. TRAINING SCHOOL
260	FACTORY/MANUF. TRAINING SCHOOL
426	FACTORY/MANUF. TRAINING SCHOOL
544	FILMS
16	FILMS
398	FILMS
640	FILMS
516	FOLLOW
155	FOR BAKER
155	FOR CAKE DECORATOR
286	FOR CASH REGISTER OPERATION
208	FOR CLERICAL
89	FOR DATA PROCESSORS
262	FOR DATA PROCESSORS

Training Programs/Alpha Listing

ID	DESCRIPTION OF TRAINING PROGRAM
802	FOR DENTAL ASSISTANT - LEARN THE TECHNIQUES OF DOCTOR
527	FOR DRIVERS
75	FOR DRIVERS
606	FOR FLIGHT ATTENDANT
12	FOR FOOD SERVICE
12	FOR HOUSEKEEP
613	FOR JANITOR
103	FOR LEGAL SECRETARY
271	FOR LOAN CLERK
465	FOR LOAN CLERK - SUPERVISOR TRAINS NEW HIRE
240	FOR MEAT CUTTERS
12	FOR NURSING ASSIST
606	FOR PASSENGER SERVICE AGENT
606	FOR PILOT POSITIONS
448	FOR PROFESSIONAL STAFF POSITIONS
174	FOR READERS
232	FOR RECEPTIONIST
89	FOR RECEPTIONIST
606	FOR RESERVATIONS AGENT
21	FOR SALES
89	FOR SALES
208	FOR SALES
9	FOR SALES CLERK
217	FOR SALES CLERK - PRODUCT KNOWLEDGE
1	FOR SALES CLERK PRODUCT KNOWLEDGE
286	FOR SALES TECHNIQUES
601	FOR SALES/PRODUCTS
606	FOR STATION AGENT
460	FOR TECHNICAL JOBS
465	FOR TELLER - SUPERVISOR TRAINS NEW HIRE
161	FOR TELLER - TRAINING PROGRAM
423	FOR TELLERS
205	FOR TELLERS - 4 WEEK PROGRAM
4	FOR TELLERS - 4 WEEK PROGRAM
643	FOR TRUCK DRIVERS
262	FOR TRUCK DRIVERS
262	FOR WAREHOUSE
565	FOR WELDERS BY MATC
667	FACTORY/MANUF. SCHOOL TRAINING
658	GENERAL ORIENTATION PROGRAM
277	GENERAL ORIENTATION PROGRAM
272	GENERAL ORIENTATION PROGRAM
510	GENERAL ORIENTATION PROGRAM
459	GENERAL ORIENTATION PROGRAM
243	GENERAL ORIENTATION PROGRAM
154	GENERAL ORIENTATION PROGRAM
14	GENERAL ORIENTATION PROGRAM
284	GENERAL ORIENTATION PROGRAM
590	GENERAL ORIENTATION PROGRAM
634	GENERAL ORIENTATION PROGRAM
532	GENERAL ORIENTATION PROGRAM
92	GENERAL ORIENTATION PROGRAM

Training Programs/Alpha Listing

ID	DESCRIPTION OF TRAINING PROGRAM
107	GENERAL ORIENTATION PROGRAM
252	GENERAL ORIENTATION PROGRAM
597	GENERAL ORIENTATION PROGRAM
620	GENERAL ORIENTATION PROGRAM
113	GENERAL ORIENTATION PROGRAM
544	GENERAL ORIENTATION PROGRAM
84	GENERAL ORIENTATION PROGRAM
667	GENERAL ORIENTATION PROGRAM
229	GENERAL ORIENTATION PROGRAM FOR 8 HOURS
401	GENERAL ORIENTATION PROGRAM FOR 1 DAY
186	GENERAL ORIENTATION PROGRAM FOR 1 DAY
181	GENERAL ORIENTATION PROGRAM FOR 1 WEEK
300	GENERAL ORIENTATION PROGRAM FOR 4 HOURS
398	GENERAL ORIENT BY INSERVICE DIRECTOR FOR 2 WEEK
291	HANDS ON EXPERIENCE
295	HANDS ON EXPERIENCE
290	HANDS ON EXPERIENCE
567	HANDS ON EXPERIENCE
311	IN HOUSE CONTINUOUS TRAINING PROGRAM
66	IN HOUSE CONTINUOUS TRAINING PROGRAM
671	IN HOUSE CONTINUOUS TRAINING PROGRAM
483	IN HOUSE CONTINUOUS TRAINING PROGRAM
172	IN HOUSE CONTINUOUS TRAINING PROGRAM
584	IN HOUSE CONTINUOUS TRAINING PROGRAM
64	IN HOUSE CONTINUOUS TRAINING PROGRAM
479	IN HOUSE CONTINUOUS TRAINING PROGRAM
608	IN HOUSE CONTINUOUS TRAINING PROGRAM
426	IN HOUSE CONTINUOUS TRAINING PROGRAM
168	IN HOUSE CONTINUOUS TRAINING PROGRAM
229	IN HOUSE CONTINUOUS TRAINING PROGRAM
271	IN HOUSE CONTINUOUS TRAINING PROGRAM
92	IN HOUSE CONTINUOUS TRAINING FOR 4 WEEKS
617	IN HOUSE CONTINUOUS TRAINING ON PRODUCTS
617	IN HOUSE CONTINUOUS TRAINING - SALES TECHNIQUES
132	INSERVICE
107	INSERVICE
253	INSERVICE - 6 DAYS PER YEAR
491	INSTITUTES
515	INSURANCE EXAMS
471	INSURANCE INSTITUTE OF AMERICA
675	JOB SHADOW
215	JOB SPECIFIC TRAINING BY DEPARTMENT
189	JOB SPECIFIC TRAINING BY DEPARTMENT
243	JOB SPECIFIC TRAINING BY DEPARTMENT
252	JOB SPECIFIC TRAINING BY DEPARTMENT
75	LEARN ROUTES
301	LEVEL AND ADAPTIVE
468	LIMITED TO SPECIFIC EQUIP
15	MANUALS
45	MANUALS
450	MANUALS
87	MANUALS

ID	DESCRIPTION OF TRAINING PROGRAM
605	MANUALS
567	MANUALS
494	MANUALS
657	MANUALS
658	MANUALS
182	MANUALS
127	MANUALS
675	MANUALS
92	MANUALS
640	MANUALS
83	MATC COURSES
536	MONTHLY IN-SERVICE
8	NATIONAL TRAINING CENTER FOR HYDROLOGIST
265	OBSERVATION
516	OBSERVE
568	ON THE JOB TRAINING
427	ON THE JOB TRAINING
422	ON THE JOB TRAINING
470	ON THE JOB TRAINING
214	ON THE JOB TRAINING
117	ON THE JOB TRAINING
499	ON THE JOB TRAINING
428	ON THE JOB TRAINING
302	ON THE JOB TRAINING
598	ON THE JOB TRAINING
444	ON THE JOB TRAINING
519	ON THE JOB TRAINING
677	ON THE JOB TRAINING
548	ON THE JOB TRAINING
109	ON THE JOB TRAINING
146	ON THE JOB TRAINING
296	ON THE JOB TRAINING
435	ON THE JOB TRAINING
90	ON THE JOB TRAINING
209	ON THE JOB TRAINING
97	ON THE JOB TRAINING
112	ON THE JOB TRAINING
216	ON THE JOB TRAINING
297	ON THE JOB TRAINING
206	ON THE JOB TRAINING
547	ON THE JOB TRAINING
401	ON THE JOB TRAINING
15	ON THE JOB TRAINING
151	ON THE JOB TRAINING
132	ON THE JOB TRAINING
87	ON THE JOB TRAINING
23	ON THE JOB TRAINING
14	ON THE JOB TRAINING
600	ON THE JOB TRAINING
73	ON THE JOB TRAINING
196	ON THE JOB TRAINING
107	ON THE JOB TRAINING

ID	DESCRIPTION OF TRAINING PROGRAM
113	ON THE JOB TRAINING
127	ON THE JOB TRAINING
168	ON THE JOB TRAINING
494	ON THE JOB TRAINING
667	ON THE JOB TRAINING
464	ON THE JOB TRAINING FOR 2 WEEKS
652	ON THE JOB TRAINING FOR 2 WEEKS
520	ON THE JOB TRAINING FOR 2 WEEKS
45	ON THE JOB TRAINING FOR 2 WEEKS
186	ON THE JOB TRAINING FOR 2 WEEKS
590	ON THE JOB TRAINING FOR 2 TO 3 MONTHS
596	ON THE JOB TRAINING FOR 40 HOURS
271	ON THE JOB TRAINING FOR 90 DAYS
620	ON THE JOB TRAINING FOR 90 DAYS
477	ON THE JOB TRAINING WITH EQUIPMENT
84	ON THE JOB TRAINING FOR SAFETY/QUALITY CONTROL
162	ON THE ROAD TRAINING AND INSERVICE TRAINING
288	OLDER WORKER TRAINS NEW HIRE
170	OLDER WORKER TRAINS NEW HIRE
219	OLDER WORKER TRAINS NEW HIRE
192	OLDER WORKER TRAINS NEW HIRE
592	OLDER WORKER TRAINS NEW HIRE
413	OLDER WORKER TRAINS NEW HIRE
182	OLDER WORKER TRAINS NEW HIRE
157	OLDER WORKER TRAINS NEW HIRE
106	OLDER WORKER TRAINS NEW HIRE
136	OLDER WORKER TRAINS NEW HIRE
406	OLDER WORKER TRAINS NEW HIRE
432	OLDER WORKER TRAINS NEW HIRE
498	OLDER WORKER TRAINS NEW HIRE
425	OLDER WORKER TRAINS NEW HIRE
518	OLDER WORKER TRAINS NEW HIRE
439	OLDER WORKER TRAINS NEW HIRE
800	OLDER WORKER TRAINS NEW HIRE
601	OLDER WORKER TRAINS NEW HIRE
656	OLDER WORKER TRAINS NEW HIRE
388	OLDER WORKER TRAINS NEW HIRE
229	OLDER WORKER TRAINS NEW HIRE
605	OLDER WORKER TRAINS NEW HIRE
648	OLDER WORKER TRAINS NEW HIRE
75	OLDER WORKER TRAINS NEW HIRE
6	OLDER WORKER TRAINS NEW HIRE
23	OLDER WORKER TRAINS NEW HIRE
640	OLDER WORKER TRAINS NEW HIRE
507	OLDER WORKER TRAINS NEW HIRE FOR 2 WEEK
11	SAFETY TRAINING
454	SAFETY TRAINING
309	SALES MEETINGS
600	STATE TRAINING CENTER IS USED
73	STATE TRAINING CENTER IS USED
211	STATE TRAINING CENTER IS USED
450	SEMI-ANNUAL SEMINARS

Training Programs/Alpha Listing

ID	DESCRIPTION OF TRAINING PROGRAM
168	SEMINARS
446	SEMINARS
495	SEMINARS
311	SEMINARS
491	SEMINARS
667	SEMINARS
439	SEMINARS EQUIP AND CONTROLS
83	SHADOW PROGRAM
127	SLIDE NARRATIVES
92	SLIDE TAPES
388	SUPERVISOR TRAINS NEW HIRE
478	SUPERVISOR TRAINS NEW HIRE
599	SUPERVISOR TRAINS NEW HIRE
292	SUPERVISOR TRAINS NEW HIRE
221	SUPERVISOR TRAINS NEW HIRE
185	SUPERVISOR TRAINS NEW HIRE
151	SUPERVISOR TRAINS NEW HIRE
489	SUPERVISOR TRAINS NEW HIRE
492	SUPERVISOR TRAINS NEW HIRE
523	SUPERVISOR TRAINS NEW HIRE
472	SUPERVISOR TRAINS NEW HIRE
464	SUPERVISOR TRAINS NEW HIRE
648	SUPERVISOR TRAINS NEW HIRE
115	SUPERVISOR TRAINS NEW HIRE
53	SUPERVISOR TRAINS NEW HIRE
194	SUPERVISOR TRAINS NEW HIRE
6	SUPERVISOR TRAINS NEW HIRE
291	SUPERVISOR TRAINS NEW HIRE
92	SUPERVISOR TRAINS NEW HIRE
295	SUPERVISOR TRAINS NEW HIRE
446	SUPERVISOR TRAINS NEW HIRE
800	SUPERVISOR TRAINS NEW HIRE
658	SUPERVISOR TRAINS NEW HIRE
265	SUPERVISOR TRAINS NEW HIRE
576	SUPERVISOR TRAINS NEW HIRE ON MACHINERY/SAFETY
414	SUPERVISOR TRAINS NEW HIRE FOR 2 WEEKS
54	SUMMER WORK EXPERIENCE
164	TRAINING PROGRAM IN PLACE
803	TRAINING CENTER
175	TRAINING - IF NEEDED
803	TRAINING - OFFICE MACHINES
196	TRAINING PROGRAM IN PLACE
574	TRAINING PROGRAM IN PLACE
471	TRAINING PROGRAM IN PLACE
9	TRAINING PROGRAM IN PLACE
57	ONE YEAR TRAINING PROGRAM IN PLACE
415	2 WEEK TRAINING PROGRAM IN PLACE
678	2 WEEK TRAINING PROGRAM IN PLACE
183	3 MONTH TRAINING PROGRAM IN PLACE
280	3 WEEK TRAINING PROGRAM IN PLACE
287	4 YEARS TECHNICAL SCHOOL TRAINING REQUIRED
416	TRAINING PROGRAM BEING DEVELOPED

Training Programs/Alpha Listing

ID	DESCRIPTION OF TRAINING PROGRAM
274	TRAINING PROGRAM BEING DEVELOPED
286	TRAINING PROGRAM FOR PRODUCT KNOWL
133	TRAINING PROGRAM FOR PRODUCT/SERVICE
125	TRAINING PROGRAM FOR MANAGEMENT SKILLS
803	TRAINING IN WORD PROCESSING
213	TECHNICAL TRAINING WHICH IS LAW ORIENTED
207	TRAINING PROGRAM WAS NOT DESCRIBED
801	TRAINING PROGRAM WAS NOT DESCRIBED
602	TRAINING PROGRAM WAS NOT DESCRIBED
164	TRAINING PROGRAM WAS NOT DESCRIBED
398	TRAINING PROGRAM WAS NOT DESCRIBED
	TRAINING PROGRAM WAS NOT DESCRIBED
249	TRAINING PROGRAM WAS NOT DESCRIBED
575	TRAINING PROGRAM WAS NOT DESCRIBED
482	TRAINING PROGRAM WAS NOT DESCRIBED
263	TRAINING PROGRAM WAS NOT DESCRIBED
603	TRAINING PROGRAM WAS NOT DESCRIBED
616	TRAINING PROGRAM WAS NOT DESCRIBED
88	TRAINING PROGRAM WAS NOT DESCRIBED
98	TRAINING PROGRAM WAS NOT DESCRIBED
85	TRAINING PROGRAM WAS NOT DESCRIBED
141	TRAINING PROGRAM WAS NOT DESCRIBED
150	TRAINING PROGRAM WAS NOT DESCRIBED
551	TRAINING PROGRAM WAS NOT DESCRIBED
637	TRAINING PROGRAM WAS NOT DESCRIBED
644	TRAINING PROGRAM WAS NOT DESCRIBED
650	TRAINING PROGRAM WAS NOT DESCRIBED
614	TRAINING PROGRAM WAS NOT DESCRIBED
395	TRAINING PROGRAM WAS NOT DESCRIBED
528	TRAINING PROGRAM WAS NOT DESCRIBED
493	TRAINING PROGRAM WAS NOT DESCRIBED
248	TRAINING PROGRAM WAS NOT DESCRIBED
264	TRAINING PROGRAM WAS NOT DESCRIBED
203	TRAINING PROGRAM WAS NOT DESCRIBED
473	TRAINING PROGRAM WAS NOT DESCRIBED
412	TRAINING PROGRAM WAS NOT DESCRIBED
137	TRAINING PROGRAM WAS NOT DESCRIBED
63	TRAINING PROGRAM WAS NOT DESCRIBED
108	TRAINING PROGRAM WAS NOT DESCRIBED
197	TRAINING PROGRAM WAS NOT DESCRIBED
467	TRAINING PROGRAM WAS NOT DESCRIBED
	TRAINING PROGRAM WAS NOT DESCRIBED
627	TRAINING PROGRAM WAS NOT DESCRIBED
645	TRAINING PROGRAM WAS NOT DESCRIBED
517	TRAINING PROGRAM WAS NOT DESCRIBED
458	TRAINING PROGRAM WAS NOT DESCRIBED
105	TRAINING PROGRAM WAS NOT DESCRIBED
3	TRAINING PROGRAM WAS NOT DESCRIBED
7	TRAINING PROGRAM WAS NOT DESCRIBED
513	TUTORIAL
42	TUTORIAL
618	TUTORIAL

Training Programs/Alpha Listing

ID	DESCRIPTION OF TRAINING PROGRAM
657	TUTORIAL
142	VARIETY -- LOCAL AND STATE TRAINING PROGRAMS
17	VIDEO TAPE PRESENTATIONS
290	VIDEO TAPE PRESENTATIONS
431	VIDEO TAPE PRESENTATIONS
640	VIDEO TAPE PRESENTATIONS
416	VIDEO TAPE PRESENTATIONS
494	VIDEO TAPE PRESENTATIONS
164	WORD PROCESSING
178	W.B.A. SEMINAR
578	WE HAVE AN ESTABLISHED PROGRAM
48	WE SEND EMPLOYEES TO SCHOOL IF WORK RELATED

ATTACHMENT D - SUMMARY OF VOCATIONAL TEACHERS SURVEY

GREATER MADISON TASK FORCE FOR PLANNING OCCUPATIONAL SKILLS EDUCATION

January 19, 1984

Dear Vocational Instructor:

The Greater Madison Task Force for Planning Occupational Skills Education has been charged with the task of making recommendations for the improvement of vocational education in the secondary school. The Task Force membership includes business people, teachers, administrators, and others from various state agencies. The Task Force has been organized into sub-committees for the investigation of specific issues. You may have been already contacted by someone on one of these committees. Because of the importance of your views to our study we are asking that you complete the enclosed survey and return it to the Task Force in the envelope enclosed.

The survey asks for some background information on your area of vocational education (Section I) and then asks you to respond to two sets of questions. The first set (Section II) deals with several statements and questions about vocational education. The second set (Section III) deals with teaching students with special needs. Will you please take a few minutes to complete the survey. No school or teacher data will be reported; only compiled results from all instructors surveyed will be shared and used by the Task Force members. Your input is important!

Harland E. Samson, Chairperson
Greater Madison Task Force for Planning
Occupational Skills Education

HES/gma

Enclosure

CC: Superintendent
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LVEC

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VOCATIONAL STAFF PERCEPTIONS
ON VOCATIONAL EDUCATION AND NEEDS FOR SPECIAL STUDENTS

Your Area of Teaching:

___ Agriculture
___ Business
___ Home Economics
___ Health
___ Industrial/Technical
___ Marketing
___ Special
___ Other: _____

Years Teaching:

___ 1-3
___ 4-6
___ 7-10
___ 11-15
___ 16 or over

Years Occupational Experience:

___ 1
___ 2
___ 3
___ 4
___ 5-7
___ 8 or over

SECTION I

1. List below the courses offered in your area of instruction that are designed primarily to provide students with vocational skills for employment.

Title _____ Grade Level _____

Title _____ Grade Level _____

Title _____ Grade Level _____

Title _____ Grade Level _____

2. List below the courses offered in your area of instruction that are designed primarily to provide students general information and skills in your occupational area.

Title _____ Grade Level _____

Title _____ Grade Level _____

Title _____ Grade Level _____

Title _____ Grade Level _____

3. Which of the courses listed above are formally articulated with post secondary courses or programs? Please describe.

Title _____

_____

Title _____

_____

4. Which of the courses listed above are formally articulated with Junior or Middle School courses. Please describe.

Title _____

_____

Title _____

5. Listed below are six points of view frequently expressed about the nature of vocational education at the high school level. Please give your view on each.

   Every student should enroll in vocational education and acquire some saleable skill prior to graduation from or leaving the high school. (Agree or disagree and explain.)

6. Enrollment in vocational education courses should be limited primarily to those students who plan to enter full-time employment upon graduation from or leaving the high school. (Agree or disagree and explain.)

7. Enrollment in vocational courses should be based on students having attained certain competencies in reading, writing, or math skills. (Agree or disagree and explain.)

8. What percentage of the students enrolled in your courses have adequate competence in reading, writing, and math to expect successful performance in the content you cover.

   _____ 90-100% _____ 70-90% _____ 50-70% _____ 30-50% _____ less than 30%

9. Enrollment in a vocational sequence should provide the student with some period of on-the-job supervised occupational experience. (Agree or disagree and explain.)

_____

_____

_____

_____

_____

_____

10. If all the following forms of occupational practice were available to you at which grade level would each be most appropriate for the students in your vocational area. (Check [✓] as many as apply -- double check [✓✓] most important.)

			Grade Level				
			9	10	11	12	All
a.	_____	Cooperative Education					
b.	_____	Supervised Work Experience.					
c.	_____	Simulation or Model Laboratory.					
d.	_____	Projects - individual					
e.	_____	Projects - group.					
f.	_____	Competency Based Learning					
g.	_____	Other _____					

11. As a result of technologies that are changing the way work is done:

a. How will courses and instruction in your vocational area be different in the future?

_____

_____

_____

b. What changes will need to be made in your course content and/or methods of instruction?

_____

_____

As vocational preparation becomes increasingly important to young people we will be seeing more and more students with special needs enrolling in vocational courses. The Task Force would like to assess the programming impact and project some recommendation regarding needs vocational educators may have in order to better serve students in special needs programs.

12. In your opinion, how many students in your high school have special needs?

____ 0-10% ____ 10-25% ____ 25-50% ____ 50-75% ____ OVER 75%

13. What percentage of the students that you see on a daily basis have special needs?

____ 0-5% ____ 5-10% ____ 10-15% ____ 15-25% ____ OVER 25%

14. List the three characteristics exhibited most frequently by students you see who have special needs. (behavioral or skill)

a. _____

b. _____

c. _____

15. Vocational teachers utilize a variety of teaching methods to assist students to succeed. Check [✓] all those that you utilize in your teaching. List others that are not mentioned.

____ open labs

____ competency tests

____ individual contracts

____ peer-teaching system

____ adapted assignments

____ team teaching with special services personnel

____ job/task sheets

____ modified equipment

____ alternative tests procedures

____ alternative assignments

____ special instructional materials

____ alternative classroom placements

____ OTHERS: _____

____ _____

____ _____

____ _____

SECTION III (continued)

16. Please indicate the level of support that you receive in each of the following areas:

	Adequate	Some	None
a. In-service training to prepare you to teach special needs students	____	____	____
b. Developing programs for students with special needs	____	____	____
c. Information about the vocational aptitudes and interests of the students with special needs in my class	____	____	____
d. Help from personnel assigned to work with specific special needs students	____	____	____
e. Time to work with special needs students	____	____	____
f. Resources to work with special needs students	____	____	____
g. Administrative support to work with special needs students	____	____	____

17. What problems do special needs students encounter as they participate in your vocational area?

_____

_____

_____

18. What is the role of vocational education as it relates to serving special needs students?

_____

_____

_____

19. Other comments you may have about special needs students and vocational education.

PLEASE RETURN THIS SURVEY IN THE
ENCLOSED ENVELOPE
THANK YOU!

ANALYSIS OF DATA - SUMMARY

VOCATIONAL TEACHER SURVEY

Prepared by:

The Greater Madison Task Force

for Planning Occupational Skills Edcuation

Respondents

There were a total of 104 respondents from the eight school districts participating on the Task Force. They were distributed amoung the vocational areas in the following manner:

Agriculture	9	Industrial/Tech	28
Business	22	Marketing	9
Home Economics	22	Special	1
Health	1	WE/CEP	1
D.V.I.	1		

Their years of teaching experience were distributed in the following manner:

1 - 3 years	10	11 - 15 years	19
4 - 6 years	10	16 or more years	52
7 - 10 years	13		

Their years of occupational experience were distributed in the following manner:

1 year	2	6 - 7 years	17
2 years	12	8 or more years	32
3 years	10	no experience	24
4 years	7		

Views about Vocational Education

5. Every student should enroll in vocational education and acquire some saleable skill prior to graduation from or leaving school.

Disagree -- 29 or 28.4%
Agree -- 73 or 71.6% of 102 respondents

6. Enrollment in vocational education courses should be limited primarily to those students who plan to enter full-time employment upon graduation from or leaving the high school.

Disagree -- 98 or 94.2%
Agree -- 6 or 5.8% of 104 respondents

7. Enrollment in vocational courses should be based on students having attained certain competencies in reading, writing, or math skills.

Disagree -- 62 or 62%
Agree -- 38 or 38% of 100 respondents

8. What percentage of the students enrolled in your courses have adequate competence in reading, writing, and math to expect successful performance in the content you cover.

90-100%	9 or 8.7%	30-50%	9 or 8.7%
70-90%	44 or 43.1%	less than 30%	3 or 2.9%
50-70%	37 or 35.6%		

of 102 respondents

9. Enrollment in a vocational sequence should provide the student with some period of on-the-job supervised occupational experience.

Disagree -- 25 or 25.3%
Agree -- 74 or 74.7% of 99 respondents

10. If all the following forms of occupational practice were available to you, at which grade level would each be most appropriate for the students in your vocational area.

	Blank	9	10	11	12	all
Cooperative Education.....	14	1	0	23	91	5
Supervised Work Experience.....	13	2	2	36	57	11
Simulation or Model Laboratory.....	5	7	18	48	13	22
Projects - individual.....	4	11	22	16	4	59
Projects - group.....	9	12	17	16	9	51
Competency Based Learning.....	21	6	10	13	8	58
Other_____	103					

12. In your opinion, how many students in your high school have special needs?

0 - 10%	22 or 22.4%	50 - 75%	2 or 2.0%
10 - 25%	58 or 59.2%	over 75%	none
25 - 50%	16 or 16.3%		

of 98 respondents

13. What percentage of the students that you see on a daily basis have special needs?

0 - 5%	25 or 24.5%	15 - 25%	19 or 18.6%
5 - 10%	28 or 27.5%	over 25%	15 or 14.7%
10 - 15%	15 or 14.7%		

of 102 respondents

15. Vocational teachers utilize a variety of teaching methods to assist students to succeed. Check all those that you utilized in your teaching.

76 open labs	70 job/task sheets
56 competency tests	37 modified equipment
55 individual contracts	56 alternative tests procedures
63 peer-training system	64 alternative assignments
75 adapted assignment	68 special instructional materials
44 team teaching with special services personnel	32 alternative classroom placements

16. Please indicate the level of support that you receive in each of the following areas:

	Blank	Adequate	Some	None
a. In-service training to prepare you to teach special needs students.....	4	16	54	30
b. Developing programs for students with special needs.....	4	16	47	37
c. Information about the vocational aptitude and interests of the students with special needs in my class.....	3	15	56	30
d. Help from personnel assigned to work with specific special needs students...	2	36	59	7
e. Time to work with special needs students.....	3	4	34	63
f. Resources to work with special needs students.....	2	11	52	39
g. Administrative support to work with special needs students.....	2	22	51	29

Analysis of Vocational Teacher response to Voc. Teacher Item #5:

Every student should enroll in vocational education and acquire some saleable skill prior to graduation from or leaving the high school. (Agree or disagree and explain.)

Of the 102 respondents to this item, 29 or 28.4 percent disagreed; and 73 or 71.6 percent agreed. The reasons for their agreement or disagreement are given below.

From time to time, various abreviations will occur. Common ones are S = student(s); BG = background etc.

Reasons for agreement:

I/T A&D/SOME S NEED A SALEABLE SKILL, SOME NEED EXPER FOR POST SEC COURSE
BUS A/
BUS A/
BUS A/
I/T A/

I/T A/
MARK A/60% GRADS DO NOT RECEIVE ANY FURTHER FORMAL EDUCATION
MARK A/ALL S ARE IN NEED OF THESE SKILLS FOR GEN KNOWL & PRACT APPLIC
BUS A/ALL S MUST WORK
WECE A/ALL STUDENTS SHOULD LEAVE HIGH SCHOOL PREPARED & WITH SOMETHING GOING

I/T A/ALL YOU HAVE TO DO IS ASK FORMER S WHO DID NOT TAKE ANY VOC ED
BUS A/ANY CLERICAL JOB WILL BE BETTER HANDLED W COURSE BK IN VARIOUS AREAS
I/T A/BE ABLE TO USE YOUR HANDS, HOBBY SKILLS FOR LEISURE TIME, KNOWL TEAMS
MARK A/CAN USE SKILLS WHILE ATTENDING VOC TEC SCHOOL
BUS A/CAREER GUIDANCE AND PREPARATION IS NOT FOR ONLY SOME IT IS FOR ALL

BUS A/EVERY GRAD SHOULD BE ABLE TO SUSTAIN THEMSELVES AFTER 18 Y OLD IF NECE
I/T A/EVERY S SHOULD BE REQUIRED TO TAKE ONE YEAR OF GNERAL DRAWING
HEC A/EVERY S SHOULD HAVE EXPER IN VOC ED & BECOME ACQUAINTED W WORLD OF WOR
I/T A/EVERY S SHOULD TAKE SOME VOC ED TO GET AN IDEA OF WHAT WORK IS ABOUT
I/T A/EVERY S WILL HOLD SEVERAL JOBS, NEED FOR COMPREH BF, GIVE SALE SKIL

I/T A/EVERY STUDENT SHOULD HAVE A SALEABLE SKILL IF ONLY FOR PT WORK
BUS A/EVERYONE NEEDS TO BE EMPLOYABLE
MARK A/FAR TOO MANY PEOPLE GRADUATE FR[illegible] HS WO EMPLOYABILITY SKILLS
AGR A/FURTHER SCHOOLING IS NOT FOR EVERYONE
BUS A/GIVE S A VIEW OF POSSIBLE CAREERS

HEC A/I HAVE SEEN MANY COLLEGE GRADUATES W NO VOC SKILLS TRYING TO FIND A JO
AGR A/I PUT SELF THRU COLLEGE WITH VOC SKILL ACQUIRED IN HIGH SCHOOL
I/T A/IF STUDENT HAS CHANGED MIND, HE HAS BACKGROUND FOR NEW CAREER
HEC A/IMPORT FOR S TO BE EXPOSED TO OUR AREA OF TEACHING BUT SALEABLE SK VAR
BUS A/IMPORTANT TO DO BUT WE NEED TO MAKE S, PARENTS, COUNSELORS, ADMIN AWAR

BUS A/IN COMPUTER AGE, ALL S SHOULD HAVE DEVELOPED SOME SKILL IN KEYBOARD
BUS A/IT IS ABSOLUTELY ESSENTIAL FOR ALL S TO HAVE SOME VOC SKILL TO FALL ON
HEC A/IT IS IMP FOR S TO HAVE A SALEABLE SKILL UPON GRAD TO ENTER WORK FORCE
BUS A/KEYBOARDING NECESSARY FOR JOB AND HOME COM
I/T A/KNOWL CAN ALWAYS BE USED BY S IN EVERYDAY EXISTENCE AT HOME & ON JOB

AGR A/LOTS OF S START COLLEGE FROM OUR SCHOOL BUT ONLY ABOUT 40% FINISH
HEC A/MANY OF THE JOBS AVAILABLE TODAY DO NOT REQUIRE A COLLEGE EDUC
BUS A/MANY S FUTURE BUSINESS LEADERS
BUS A/MANY S HAVE UNREALISTIC EXPECT-MAY ENTER COLLEGE BUT ITS IN NOT FOR TH
MARK A/MANY S PLAN TO GO TO COLL BUT DROP, OTHERS NEED PT JOBS OR JOB POST CO

BUS A/MANY SKILL IN BUS ED ARE USED FOR REST OF LIFE
HEAL A/MOST OF OUR S WILL ENTER THE WORK FORCE
HEC A/MOST OF THE JOBS TODAY DO NOT REQUIRE A COLLEGE DEGREE
I/T A/NATICNALLLY 60% OF HS GRADS DO NOT GO ON TO COLLEGE
BUS A/NEED SKILL TO WORK OUT HS--EVEN COLLEGE BOUND

MARK A/NEED TO BE RPEPARED FOR THE WORLD OF WORK
AGR A/NOT ONLY AT SECONDARY LEVEL BUT ALSO AT COLLEGE
HEC A/NOT ONLY PRIVILEGE BUT RIGHT OF ALL S TO DEVELOP SALEABLE SKILL
BUS A/OF 22 CRED FOR GRAD, SOME ELECTIVES SHOULD BE IN VOC, ESP TYPING
AGR A/ONLY 40% OF OUR HS S GO ON TO COLLEGE- WE NEED PREPARE OTHERS FOR WOW

BUS A/OVER 50% S DO NOT GRAD FROM COLLEGE OR TECH SCH NEED OPPORT FOR SKILLS
BUS A/OVER 90% OF ALL PEOPLE UTILIZE BUS SKILLS DURING THEIR LIVES
MARK A/PROVIDES S WITH JOB SKILLS SUCH AS RESUME WRITING AND INTERVIEW
BUS A/REGARDLESS OF CAREER GOALS EVERY STUDENT SHOULD HAVE SKILL
DVI A/REGARDLESS OF CAREER, CIRCUMSTANCES NECESSITATE WORKING IN CAPACITIES

I/T A/S WILL HAVE SEVERAL JOBS DURING THEIR LIFETIME, ED RESPON IS BE BROAD
BUS A/SINCE A LARGE PERCENTAGE END UP IN BUSINESS RELATED JOB, VOC ED IMPERA
HEC A/SKILLS ARE SELL-ABLE IN THE JOB MARKET, LIFE CAN DEAL UNEXPECTED SITUA
BUS A/STATISTICS SHOW THAT 60% OF OUR GRADS DO NOT GO ON TO A COLLEGE PROGRA
BUS A/STUDENTS NEED SKILL TO OBTAIN PT EMPLOY IN COLLEGE

I/T A/THE TOP SALEABLE SKILL IS A POSITIVE ATTITUDE TOWARD DOING A DAYS WORK
BUS A/THESE ARE USEABLE SKILLS REGARDLESS OF VOCATION, I.E. TYPING, ACCT
HEC A/THIS DAY AND AGE THEY MAY NEED A JOB TO GET THROUGH COLLEGE OR WHATEVE
MARK A/TO BE PRODUCTIVE CITIZEN, S MUST BE EMPLOYABLE
I/T A/TOO MANY PEOPLE ARE NOW IN THE WORK FORCE WITHOUT SKILLS

MARK A/TOO MANY S ENTER COLLEGE OR THE WORK FORCE WO KNOWL OF WORK, ETHICS, H
HEC A/VE CLASSES ARE VARIED & REPESENT CROSS-SECTION OF LIFE, NO SALEABLE SK
BUS A/VE IS BASIC EDUC, STUDY OF BASIC CURRICULA IS BENEFICIAL TO ALL
I/T A/VOC CLASS GIVES S A KNOWL AND APPRECIATION FOR SKILLS
AGR A/WHO KNOW WHAT WILL BE NEEDED TO ATTEND COLLEGE & WORK FOR AN INCOME

AGR A/WHO WOUD WANT TO HIRE AN UNSKILLED EMPLOYEE
HEC A/WORK ETHIC, HUMAN RELATIONS, GENERAL WORK ATTIT, APPIT APPLY TO ALL
HEC AD/ALL STUD SHULD KNOW BASICS IN CORE SUBJECTS, KNOW HOW TO GET ALONG

Reasons for disagreement:

BUS D/ALL DO NOT NEED SALEABLE SKILLS
I/T D/ALL S DO NOT NEED VOC SKILL BUT ALL SHOULD HAVE SOME BG IN VOC AREA
I/T D/ALL S SHOULD ENROLL TO BECOME KNOWL IN THE AREA
BUS D/DEPENDS ON ABILITIES OF S
HEC D/DON'T NEED SALEABLE SKILL FOR ALL

I/T D/DUE TO DIFFERENCES IN MATURATION, ABILITY AND INTEREST THE NEEDS OF
I/T D/EVERY S KNOWS WHAT THEY WANT TO DO AND VOC ED SUBJ MAY NOT HELP
I/T D/EVERY S SHOULD ENROLL IN VOC ED TO ACQUIRE CONSUMER KNOWL AND USAGE
I/T D/EVERY S SHOULD HAVE SOME VOC ED BUT NOT SURE ALL CAN ACQUIRE SAL SKILL
HEC D/I CAN SEE THE BENEFIT FOR ALL BUT IT IS UNREALISTIC

I/T D/I FEEL S SHOULD APPROACH HS PROGRAM WITH A WIDE SCOPE
HEC D/MANY STUDENTS HAVE NEED FOR VOC ED AT HS LEVEL BUT SHOULD NOT BE REQUI
AGR D/MORE STUDENTS SHOULD OBTAIN SALEABLE SKILL BUT NOT EVERY STUDENT
AGR D/NEITHER TIME OR MONEY TO ALLOW EVERY STUDENT TO ACQUIRE SALEABLE SKILL
BUS D/NOT A SALEABLE SKILL BUT WORK STANDARDS, CAREER EXPOSURE, BUS UNDERSTA

HEC D/NOT ALL SOME S SHOULD PURSUE OTHER INTERESTS
I/T D/NOT EVERY S NEED A SALEABLE SKILL IN VOC AREA, BUT ALL HAVE SOME EXPOS
HEC D/NOT EVERY S WILL DO WELL AT THIS, INTEREST SHOULD BE KEY DETERMINER
I/T D/NOT EVERY STUDENT. PERHAPS ONLY FOR THE NON-COLLEGE BOUND
I/T D/NOT EVERYONE SHOULD ATTEND VOC COURSES, SOME ARE VERY ACADEMIC

HEC D/NOT NECESSARY FOR ALL S TO HAVE SALEABLE SKILL
I/T D/ONE DOES NOT HAVE TO ENROLL IN VOC ED TO OBTAIN A SALEABLE SKILL
HEC D/SALEABLE SKILL TOO LIMITING, S NEED TO DEVELOP BASIC WORK SKILLS
I/T D/SOME EXPERIENCE IS GOOD BUT ALL DO NOT NEED CAPSTONE EXPER
HEC D/SOME S CHOOSE VOC FIELDS WHERE HS SKILL WOULD BE IMPOSSIBLE TO TEACH

HEC D/STUD SHOULD NOT BE FORCED TO CHOOSE ALL CAREER COURSES IN JUST ONE VAR
SPEC D/STUDENTS W ABIL SHOULD CONCENTRATE ON COLLEGE PREP
BUS D/THIS WOULD BE A BIG RESPONSIBILITY TO SADDLE VOC ED WITH
HEC D/UNREALISTIC TO THINK EVERY STUDENT WOULD LEAVE HS WITH SAELABLE SKILL

Analysis of Vocational Teacher response to Item #6:

Enrollment in vocational education courses should be limited primarily to those students who plan to enter full-time employment upon graduation for or leaving high school. (Agree or disagree and explain.)

Of the 104 respondents, 98 or 94.2 percent disagreed; and 6 or 5.8 percent agreed with the above statement.

Reasons for agreement:

I/T	A/S NOT PLAN ON POST HS ED SHOULD BE EXPOSED TO MANY DIFF VOC SUBJ AREAS
HEC	A/SOME S DO NOT HAVE AN INTEREST IN POST HIGH SCHOOL FORMAL ED
HEC	A/SOME S WHO HAVE A VOCATIONAL INTEREST AND PLAN TO GO ON TO SCHOOL
SPEC	A/THESE STUDENTS NEED TO CONCENTRATE ON VED BUT NOT CAST ASIDE COLL PREP
I/T	A/THEY ARE TRAINED FOR IT, TERMINOLOGY INFORMATION ACQUIRED
I/T	A/VOC ED IS JOB TRAINING, FOR GENERAL KNOWL S CAN TAKE BASIC COURSES

Reasons for disagreement:

BUS	D/
BUS	D/
I/T	D/
AGR	D/A VOCATIONAL SKILL CAN BE USED IN DAILY LIFE SITUATIONS
BUS	D/ALL DO NOT NEED SALEABLE SKILLS, ALL CAN USE VOC ED FOR PERSONAL NEEDS
MARK	D/ALL S EVEN AS CONSUMERS SHOULD HAVE AN AWARENESS OF BUS
HEC	D/ALL S NEED INFORMATION ABOUT FAMILIES FUNCTIONING
HEC	D/ALL S NEED SKILLS FOR FAMILY LIVING, CHILD DEVE, NUTRITION, CLOTHING,
I/T	D/ALL S NEED UNDERSTANDING OF INDUSTRY AND ITS PLACE IN OUR SOCIETY
HEC	D/ALL S NEED VOC ED COURSES
BUS	D/ALL S SHOULD BE QUALIFIED FOR GAINFUL EMPLOYMENT UPON GRAD FROM SEC ED
BUS	D/ALL S SHOULD ENROLL IN VOC ED COURSE
HEC	D/ALL S SHOULD HAVE SALEABLE SKILLS
I/T	D/ALL S SHOUL HAVE SOME EXPOSURE TO I.E., LARGE % OF POPUL WORKS IN IND
I/T	D/ALL S TAKING COURSE SHOULD HAVE BASIC UNDERST OF THE SKILLS

BUS D/ALL SHOULD HAVE AT LEAST KEYBOARDING SKILLS REGARDLESS OF VOC PLANS
AGR D/ALL STUDENTS NEED ACQUIRE SOME SKILL PRIOR TO GRADUATION
HEC D/ALL STUDENTS NEED LIFE SKILLS LEARNED IN VOC. DEPTS.
HEC D/ANY S SHOULD BE ABLE TO RECEIVE SOME VOC ED TO HELP THEM COPE WITH SOC
BUS D/BUS KNOWL IS IMPORTANT TO HAVE IN ALL AREAS THROUGHOUT ONES LIFE

HEC D/CAREER CHANGES ARE A REALISTIC PART OF LIFE TODAY, BROAD PREP IS WISE
I/T D/COLLEGE BOUND S INTENDING TO TAKE ENGIN, SCIENC, ETC, TAKE VE COURESE
BUS D/COLLEGE BOUND S NEED TYPING, NOTETAKING,AND ANY COURSE BG AT HS LEVEL
BUS D/COLLEGE MAY NOT BE FOR THEM
BUS D/COMMON SENSE DICTATES ANSWER

AGR D/COULD BE FOR AVOCATIONAL REASON, AN AREA TO FALL BACK ON
I/T D/COURSES SHOULD BE DESIGNED TO HELP ALL STUDENTS DEVELOP INTO A WHOLE P
AGR D/DOES A FRESHMAN KNOW THAT AS A SENIOR THEY PLAN TO WORK?
HEC D/EDUCATION SHOULD BE AVAILABLE TO ALL WHO DESIRE IT
I/T D/EVERY S SHOULD OBTAIN CONSUMER INFOR TO FUNCTION IN OUR SOCIETY

I/T D/EVERY S TAKE SOME VOC ED TO GET AN IDEA OF WHAT WORK IS ALL ABOUT
BUS D/EVERY STUDENT HAS RIGHT TO ACQUIRE SALEABLE SKILL
BUS D/EVERY STUDENT SHOULD HAVE SKILL TO USE IF THEIR PLANS DON'T WORK OUT
I/T D/EVERYONE IS GOING TO LIVE IN SOMEKIND OF DWELLING THAT NEEDS REPAIR
I/T D/EVERYONE MUST UNDERSTAND HOW WE FUNCTION IN ORDER TO CONTRIBUTE TO SOC

I/T D/EVERYONE NEED AT LEAST THE EXPOSURE OF VARIOUS AREAS OF INTEREST
I/T D/EVERYONE SHOULD BE AWARE OF THE WORLD OF WORK BEFORE DECIDING ON HS ED
BUS D/EVERYONE SHOULD HAVE SOME BASIC, PRACTICAL, DAILY LIVING SKILLS AS BKU
I/T D/EVERYONE WILL BENEFIT FROM COURSES - OFFER UNDERSTAND & SKILLS TEC SO
HEC D/EVERYONE, INCLUDING MALES, NEED HOUSEKEEPING SKILLS AS WELL AS CHILD C

BUS D/FEW S & PARENTS WANT TO ENTER FT WORK
HEC D/FOR MOST STUDENTS-THIS WILL BE THE ONLY TIEM INTRODUCED TO AREAS OF VE
AGR D/FOR SOME-VOC COUSRE MAY BE THE ONLY CAREER EXPLORATION THEY RECEIVE
I/T D/FTE STUDENTS SHOULD BE ENCOURAGED TO TAKE VOC ED, COLL BOUND CAN BENEF
HEC D/HEC OFFERS MUCH TO ALL S WHO WILL BE DOING THE WORK OF THE FAMIL

HEC D/HOMEMAKING SKILLS ARE REQUIRED OF EVERYONE
I/T D/HURT STUDENTS THAT MIGHT CHANGE THEIR MIND ABOUT OCCUPATION
WECE D/IMPORTANT FOR ALL STUDENTS TO BE EXPOSED
BUS D/KEYBOARDING BY ALL
BUS D/MANY DO NOT REALIZE WHAT % OF KIDS DO NOT GO ON TO COLLEGE

BUS D/MANY BUSINESS CAREERS DEMAND FURTHER EDCUATION
HEC D/MANY COURSES ARE LIFETIME SKILLS FOR FAMILY LIVING
BUS D/MANY DO NOT PLAN POST SEC ED COURSES IN TIE TO BENEFIT FROM THIS POLIC
MARK D/MANY PLAN TO GO TO COLL BUT DROP, OTHERS NEED PT JOBS OR JOB POST COLL
I/T D/MANY S WHO DO NOT ENTER FT WORK FORCE CAN BENEFIT FROM VE COURSES

MARK D/MANY SALES CAREERS REQUIRE AT LEAST AN ASSOCIATE DEGREE
I/T D/MOST COURSE LEVELS ARE AT A LEVEL ACCEPTABLE FOR ALL SC
HEAL D/MOST OF OUR S WILL ENTER THE WORK FORCE
HEC D/MUCH VALUABLE INFORMATION AND EXPERIENCE CAN BE GAINED--EVEN COLLEGE
BUS D/NOT ALL STUDENTS COLLEGE BOUND

MARK D/OLD STIGMA OF PUT THEM IN VOC ED IF NOT GOING TO COLL MUST CHANGE
I/T D/OPEN TO ANYONE WHO HAS AN INTEREST IN IT NOT JUST PEOPLE LOOKING FOR J
BUS D/OPPORTUNITIES TO ENROLL IN VOC ED SHOULD BE OPEN TO ALL S
HEC D/OVER 50% OF MY S CONTINUE IN CAREER COURSES OF DEGREE PROGRAMS
BUS D/OVER 50% S DO NOT GRAD FROM COLLEGE OR TECH SCH NEED OPPORT FOR SKILL

BUS D/PLANS CAN CHANGE ABRUPTLY WITH DEATHS OR ACCIDENTS OR RECESSIONS
I/T D/S NEED BROAD COMPREHENSIVE BACKGROUND TO COMPETE IN TODAY'S JOB MARKET
HEC D/S NEED TO RELATE TO PEOPLE, MOST MARRY & HAVE FAMILIES, MOST WILL WORK
BUS D/S PURSUING A FURTHER ED ARE NOT EXEMPT FROM A CAREER
I/T D/S WHO GO ON TO COLLEGE MAY NEVER AGAIN HAVE THE OPPORT

BUS D/S WILL PROBABLY NEED TO WORK DURING COLLEGE TO SUPPORT THEIR EDUC
MARK D/SEC. LEVEL STUDENTS ARE NOT EXPER TO MAKE UP THEIR MINDS WHAT THEY WAN
AGR D/SHAME IF STUD NOT ALLOWED OPPORT. TO BE EXPOSED TO VOC AREA IF INTERES
I/T D/SHOULD BE AVAILABLE TO EVERYONE - COLLEGE GRADS MAY NEED VOC ED MORE
AGR D/SHOULD BE FOR EVERYONE WANTING TO LEARN

MARK D/SHOULD BE OPEN TO ALL S, COURSES CAN BE USED AS A FOUNDATION FOR COLLE
BUS D/SHOULD COVER ALL S AIDS IN THEIR FUTURE EMPLOYMENT & EDUC NEEDS & DECI
HEC D/SKILLS DEVELOPED IN HS CAN HELP A S EARN PART OF WAY THRU COLLEGE
BUS D/SKILLS LEARNED ARE BASIC, PEOPLE CHANGE VOCATIONS, COMP ED GIVES INSIG
HEC D/SOME MAY GO INTO EMPLOYMENT OTHERS REQUIRE A DIFFERENT USE PART-TIMJOB

I/T D/SOME S NEED A SALABLE SKILL, SOME NEED EXPER FOR POST SEC COURSE
I/T D/THERE ARE FEW JOBS THAT WILL ALLOW A S W ONLY A HS DEGREE TO LT JOB SA
HEC D/THERE ARE MANY COLLEGE GRADS W NO VOC SKILLS TRYING TO FIND A JOB
MARK D/THERE IS NEED FOR VOC ED BY S AT ALL LEVELS
BUS D/THERE IS VALUE IN A VOCATIONA FROGRAM FOR EVERYONE

MARK D/USE SKILLS WHILE ATTENDING VOC TEC SCHOOL
AGR D/VO ED BENEFITS NOT JUST EMPLOYEES BUT CUSTOMERS WHICH EVERYONE IS
BUS D/VOC COURSES SHOULD BE FOR ALL S
BUS D/VOC COURSES SHOULD BE OPEN TO ALL STUDENTS, CAREER GOALS CHANGE,
AGR D/VOC ED COURSES HAVE SOMETHING TO OFFER FOR EVERYONE

I/T D/VOC ED IS FOR ALL STUDENTS
BUS D/VOC ED IS NEEDED BY EVERYONE
BUS D/VOC ED PROVIDES UNLIMITED OPPORTUNITIES FOR ALL S - INCLUDING COLLE BO
I/T D/VOC TRAINING WHILE IN HS IS NOT ONLY CAN ENABLE A FEW FOR FTE BUT ALL
HEC D/VOCATIONAL COURSES OFFER INFORMATION AND SKILLS TO THE COLLEGE BOUND

BUS D/WE HAVE SOMETHING THAT ALL S WOULD BENEFIT
MARK D/WORKING IN AN OCCUP PRIOR TO ENTER COLL CAN GIVE S BETTER PERSPECTIVE

Analysis of Vocational Teacher response to item #7:

Enrollment in vocational courses should be based on students having attained certain competencies in reading, writing, and math skills. (Agree or disagree and explain.)

Of the 100 respondents to this item, 59 disagreed and 3 were neutral for a total of 62 or 62 percent of the respondents who did not agree with this item.

Reasons for agreement:

AGR	A/
I/T	A/9TH GRADE LEVEL AT HIGH SCHOOL
HEC	A/A BASIC COPMETENCE REQUIRED FOR EMPLOYABLILITY BUT NOT FOR TRAINING
HEC	A/ACADEMIC COMPETENCIES TO A DEGREE ARE REQUIRED TO APPLY FOR A JOB
BUS	A/ALL COURSE SHOULD BE BASED ON THIS S ARE MORE EMPLOYABLE IF THEY HAVE
BUS	A/ALSO KEYBOARDING SKILLS
MARK	A/COMMUNICATION SKILLS ARE IMPORTANT IN THE MARKETING AREA
AGR	A/COMP ARE A MUST TO SUCCEED IN VOC AREAS,IF LACK SHOULD LEARN SKILL
BUS	A/COMPET ARE INTEGRAL PART OF VOC ED, SKILLS NEEDED TO PREPARE FOR HI TE
AGR	A/DIFFICULT TO TEACH SKILLS TO STUD WHO DO NOT EVEN KNOW HOW TO READ, WR
BUS	A/ENROLLMENT IN ALL HS COURSES SHOULD BE BASED ON CERTAIN LEVELS OF COMP
BUS	A/GOOD EXAMPLE IS MIL TECH HS TO ENROLL GOOD READING SCORE IS IMPORRT
BUS	A/HS S SHOULD HAVE THESE SKILLS PRIOR TO ATTENDING HS
HEC	A/I FEEL I MEET THIS LACK OF BY KEEPING THEM IN THE CURRICULUM
I/T	A/IN MY AREA BASIC READING, WRITING, AND MATH SKILLS ARE REQUIRED
I/T	A/IN SENIOR LEVEL COURSES BUT NOT BEGINNING LEVEL
I/T	A/MAY NOT BE POSSIBLE
I/T	A/NEEDED TO FUNCTION IN SOCIETY. EXPRESS YOUR POINT OF VIEW
BUS	A/NOT REALISTIC BECAUSE OF MAINSTREAMING
I/T	A/NOT REALISTIC TO PUT S WITHOUT MINIMUM SKILLS INTO VOC CLASSES
BUS	A/OTHERWISE WE SPEND MUCH TIME TEACHING BASICS VS BUILDING ON A COMP BAS
I/T	A/READING, WRITING, AND MATH SKILLS ARE ESSENTIAL BUILDING BLOCKS IN FIN
I/T	A/S IN SCHOOL 9 YRS SHOULD BE ABLE TO OBTAIN CERTAIN PROF IN READ, ETC
HEC	A/S SHOULD BE COMPETENT IN BASICS OF THE ABOVE SKILLS
I/T	A/S SHOULD HAVE A GOOD MATH BG SO THEY CAN READ A RULE, ADD, SUBTRACT FR
BUS	A/S SHOULD HAVE ATTAINED AT LEAST MINIMAL COMPETENCIES IN THESE THREE AR

I/T A/S SHOULD HAVE SKILLS NEEDED FOR THE CLASS
BUS A/SHOULD HAVE CERTAIN COMPETENCIES IN READING, WRITING, MATH, ABLE UNDER
I/T A/TEACHERS NEED TO PROVIDE REMEDIAL HELP MUST BE MADE AVAILABLE FOR STUD
A/THE ABOVE SKILLS ARE NECESSARY IN THE OFFICE,
HEC A/THESE BASIC SKILLS CAN FURTHER BE DEVELOPED IN VOC ED COURSES

I/T A/THESE COMPETENCIES ARE A VERY IMPORT TO SUCCESS OF MOST AREAS OF STUDY
AGR A/TRUE FOR ANY SECNDARY OR POST-SECONDARY PROGRAM
BUS A/UNLESS THEY CAN TAKE COURSE TO INCREASE THESE SKILLS
MARK A/VERY IMPORTANT TO BE SUCCESSFUL IN VOC COURSES
MARK A/VOC PROGRAM SHOULD ALLOW S TO APPLY THEIR SKILLS WIN A CAREER

HEC A/WITHOUT MINIMAL COMPETENCIES, STUDENT AND TEACHER TIME WILL NOT BE PUT
BUS A/WO ABILITY TO READ, WRITE, OR HAVE SOME MATH SKILS, ONE CAN'T FUNCTION

Reasons for Disagreement:

BUS D/
BUS D/
I/T D/
I/T D/ALL S NEED AN OPPORTUNITY FOR ED, 3R'S CAN BE REINFORECED IN VOC ED
HEC D/ALL S NEED VOC COURSES, THESE CAN BE MODIFIED IF S HAVE NOT REACHEDCOM

MARK D/ALL S SHOULD BE ELIGIBLE FOR BEGINING LEVEL CLASSES & MOVE UP AT T REC
I/T D/ALTHOUGH COMPETENCIES ARE NECESSARY VOC ED CAN MORE EASILY BE TAILORED
HEC D/CONCENTRATE ON LIFE QUALITY SUSTAINING SKILLS, INDIVIDUALIZED INSTRUCT
SPEC D/DEPENDS ON ABILITIES OF STUDENTS INVOLVED
I/T D/EVERY S NEEDS THIS BACKGROUND

I/T D/EXPECT A LEVEL OF COMPETENCY BUT BE WILLING TO HELP STUDENTS BELOW
I/T D/HAVE HAD MANY S DO WELL IN MATERIAL WORK BUT POOR IN READING
AGR D/ITS NOT TRUE IN OTHER COURSES SO SHUOOD NOT BE THE CASE WITH VOC ED
HEC D/MANY OF THE S DO NOT DO WELL IN READING BUT CAN PERFORM SKILLS W EXPET
MARK D/MANY OF THESE COMMUNIC & BASIC MATH SKILLS CAN BEST BE TAUGHT IN VE

MARK D/MANY VE PROGRAMS KEEPS KIDS IN SCHOOL, VE MAY GIVE S PRACT REA FOR SKI
I/T D/MOST PEOPLE DO NOT KNOW WE TEACH COMMUNICATION, MATH, SCIENCE
HEAL D/MOST S WILL NEED TO EARN THEIR OWN LIVING W OR WO COMPETENCIES
BUS D/MOST VOC ED IMPROVE COMPETENCIES IN BASICS BEC S SEE REALISTIC APPLICA
I/T D/NICE FROM TEACH STANDPOINT BUT ELIMINATE SOME INDIVIDUALS

I/T D/NOT SURE, EVERY SITUATION IS DIFFERENT, COULD BE GOOD OR BAD OF S
BUS D/PROFICIENTLY OF ONE DEPT SHOUL NOT DETERMINE A S'S CAREER OPTIONS
BUS D/S CAN ATTAIN SOME SKILL REGARDLESS OF THESE CRITERIA
BUS D/S PROVISIONS MUST BE MADE FOR S TO OVERCOME THESE SHORTCOMMINGS IN BE
BUS D/SOME COURSES CAN APPLY REGARDLESS OF SKILLS

HEC D/SOME ENTRY LEVEL POSITIONS DO NOT REQUIRE SUCH SKILLS & PROVIDE PLACE
HEC D/SOME OF OUR COURSES ENVOLVE "HANDS ON ACTIVITIES" WITH NEW SKILLS
AGR D/SOME OF THESE COMPETENCIES CAN BE LEARNED IN VOC ED COURSES
HEC D/SOME S THAT BENEFIT MOST ARE THE ONE THAT CAN'T SUCCEED ELSEWHERE
HEC D/SOME WILL NEVER MAKE IT UNLESS COMPET ARE CHANGED BUT THEN WHY HAVE IT

BUS D/SPECIAL CLASSES IN VOC ED HAVE BEEN FORMED TO HELP S WITH LACKS IN BAS
HEC D/STUDENTS OF ALL, EVEN LOW LEVEL STUDENTS, CAN RECEIVE VOC ED W ADOPTAT
WECE D/STUDS SHOULD NOT BE DISCRIMINATED AGAINST BASED ON THESE FACTORS
BUS D/THERE ARE JOBS ON ALL LEVELS
I/T D/THERE ARE SOME VOC SKILLS WHICH DO NOT NEED ABOUT COMPETENCIES

I/T D/THESE COMPETENCIES SHOULD EXIST WITHIN THE COURSE, COURSE MOTIVATE SKI
HEC D/THESE COURSES MAY BE ONE PALCE STUDENT WILL HAVE AN INTEREST
I/T D/THESE SHILLS SHOULD BE WORKED ON IN ALL COURSES IN HIGH SCHOOL
BUS D/THESE SKILLS ARE TAUGHT IN THE BUS CURRICULUM, EVENTUALLY STANDARDS
DVI D/THIS IS DISCRIMINATORY! VOC COURSES ARE ONE FACET OF REGULAR EDUC

BUS D/THIS MAY BE FIRST TIME THEY SEE RELEVANCE TO WHAT THEY ARE DOING
BUS D/THIS WOULD BE NICE BUT NOT ALWAYS THE CASE BUT BASICS ARE IMP FOR V E
BUS D/VE IS FOR EVERYONE, SUCCESS IS IMPORTANT & LEVEL VARY WITH INDIVIDUA
AGR D/VOC COURSES CAN BE TAUGHT SO ALL S CAN BENEFIT TO A DEGREE
AGR D/VOC COURSES CAN BE TAUGHT SO ALL S CAN BENEFIT TO A DEGREE

HEC D/VOC ED CAN PROVIDE S THAT LACK COMPET W SALEABLE SKILLS
BUS D/VOC ED IS ALOS A PLACE TO DEVELOP THESE COMPETENCIES, EMATH,BENG,
MARK D/VOC ED IS FOR EVERYONE NOT LIMITED TO STUDENTS WITH CERTAIN ABILITIES
BUS D/VOC ED PLACE FOR STUDENT TO GET BASIC CONFIDENCE FOR SUCCESS WOFW
MARK D/WE ARE IN A EQUAL SOCIETY. ALL S MUST HAVE THE SAME OPPORT TO SUCCEED

I/T D/WE DO HAVE PLACES IN IE TO TEACH STUDENTS MANUAL WORK
I/T D/WE HELP TEACH THE ABOVE MENTIONED SUBJECTS
AGR D/WE NEED S WITH SOME COMPET BUT INVOLVEMENT MAY HELP TO FURTHER DEVELOP
HEC D/WHAT PROVISIONS WOULD BE MADE FOR SPECIAL NEEDS STUDENTS
BUS D/WOULD BE GOOD BUT VOC ED IS NOT ONLY FOR THE TALENTED

HEC D/WOULD BE NICE BUT SNS NEED TO KNOW HOW TO SEW, COOK, CARE FOR CHILDREN
BUS D/WOULD ELIMINATE FAR TOO MANY S FROM THESE VALUABLE COURSES
HEC D/WOULD LIMIT ENROLLMENTS TOO MUCH, WE NEED TO BE AWARE OF LACK OF COMP
BUS D/WOULD WE OR ANLY AREA HAVE ANY STUDENTS?
MARK D/VOC ED ARE FOR S OF ALL ABILITY LEVELS

I/T I FEEL THAT ALL HS SUBJECTS ARE PRIMARILY VOC FOR ALL S

BUS N
HEC N/COMPETENCIES SHOULD BE STRESSED TO STUDE IN VOC COURSES, EMPERS SEEK
HEC NA/SCHOOLS ARE MAINSTREAMED MAKING THIS STATEMENT IRREVELANT AND OLD FAS

Vocational Teachers Survey

Analysis of Vocational Teacher response to Item #8:

What percentage of the students enrolled in your course have adequate competence in reading, writing, and math to expect successful performance in the content you cover?

Area	Teaching Experience	Occupational Experience	Percent Competent
HEC	7 to 10 years	no occup. exper.	no response
HEC	11 to 15 years	no occup. exper.	no response
I/T	over 16 years	over 8 years	no response
BUS	over 16 years	over 8 years	90 - 100 %
HEAL	11 to 15 years	3 years	90 - 100 %
HEC	over 16 years	no occup. exper.	90 - 100 %
I/T	over 16 years	5 to 7 years	90 - 100 %
I/T	over 16 years	over 8 years	90 - 100 %
I/T	over 16 years	over 8 years	90 - 100 %
MARK	1 to 3 years	5 to 7 years	90 - 100 %
WECE	1 to 3 years	no occup. exper.	90 - 100 %
AGR	1 to 3 years	over 8 years	70 - 90 %
BUS	11 to 15 years	2 years	70 - 90 %
BUS	1 to 3 years	2 years	70 - 90 %
BUS	11 to 15 years	3 years	70 - 90 %
BUS	11 to 15 years	2 years	70 - 90 %
BUS	over 16 years	3 years	70 - 90 %
BUS	over 16 years	over 8 years	70 - 90 %
BUS	over 16 years	over 8 years	70 - 90 %
BUS	over 16 years	3 years	70 - 90 %
BUS	11 to 15 years	3 years	70 - 90 %
BUS	over 16 years	3 years	70 - 90 %
BUS	over 16 years	5 to 7 years	70 - 90 %
BUS	over 16 years	1 year	70 - 90 %
BUS	over 16 years	over 8 years	70 - 90 %
BUS	over 16 years	no occup. exper.	70 - 90 %
BUS	over 16 years	no occup. exper.	70 - 90 %
BUS	11 to 15 years	3 years	70 - 90 %
BUS	over 16 years	5 to 7 years	70 - 90 %
HEC	7 to 10 years	no occup. exper.	70 - 90 %
HEC	11 to 15 years	no occup. exper.	70 - 90 %
HEC	11 to 15 years	5 to 7 years	70 - 90 %
HEC	11 to 15 years	5 to 7 years	70 - 90 %
HEC	over 16 years	no occup. exper.	70 - 90 %
HEC	over 16 years	2 years	70 - 90 %
HEC	over 16 years	over 8 years	70 - 90 %

Vocational Teachers Survey

Area	Teaching Experience	Occupational Experience	Percent Competent
HEC	11 to 15 years	5 to 7 years	70 - 90 %
HEC	11 to 15 years	no occup. exper.	70 - 90 %
HEC	7 to 10 years	5 to 7 years	70 - 90 %
HEC	11 to 15 years	over 8 years	70 - 90 %
HEC	1 to 3 years	over 8 years	70 - 90 %
I/T	over 16 years	over 8 years	70 - 90 %
I/T	11 to 15 years	over 8 years	70 - 90 %
I/T	1 to 3 years	no occup. exper.	70 - 90 %
I/T	11 to 15 years	no occup. exper.	70 - 90 %
I/T	over 16 years	over 8 years	70 - 90 %
I/T	over 16 years	5 to 7 years	70 - 90 %
I/T	over 16 years	5 to 7 years	70 - 90 %
I/T	over 16 years	over 8 years	70 - 90 %
I/T	over 16 years	no occup. exper.	70 - 90 %
I/T	over 16 years	2 years	70 - 90 %
I/T	11 to 15 years	4 years	70 - 90 %
MARK	11 to 15 years	over 8 years	70 - 90 %
MARK	7	5 to 7 years	70 - 90 %
MARK	11 to 15 years	no occup. exper.	70 - 90 %
AGR	11 to 15 years	over 8 years	50 - 70 %
AGR	11 to 15 years	over 8 years	50 - 70 %
AGR	0	no occup. exper.	50 - 70 %
AGR	0	no occup. exper.	50 - 70 %
AGR	1 to 3 years	2 years	50 - 70 %
AGR	11 to 15 years	4 years	50 - 70 %
BUS	11 to 15 years	no occup. exper.	50 - 70 %
BUS	over 16 years	over 8 years	50 - 70 %
BUS	7 to 10 years	3 years	50 - 70 %
BUS	over 16 years	over 8 years	50 - 70 %
BUS	1 to 3 years	over 8 years	50 - 70 %
BUS	over 16 years	no occup. exper.	50 - 70 %
BUS	7 to 10 years	2 years	50 - 70 %
BUS	over 16 years	3 years	50 - 70 %
BUS	over 16 years	2 years	50 - 70 %
BUS	over 16 years	4 years	50 - 70 %
BUS	over 16 years	5 to 7 years	50 - 70 %
BUS	1 to 3 years	no occup. exper.	50 - 70 %
HEC	11 to 15 years	no occup. exper.	50 - 70 %
HEC	over 16 years	no occup. exper.	50 - 70 %
HEC	7	2 years	50 - 70 %
HEC	11 to 15 years	3 years	50 - 70 %
HEC	over 16 years	no occup. exper.	50 - 70 %
HEC	over 16 years	over 8 years	50 - 70 %
HEC	over 16 years	no occup. exper.	50 - 70 %
I/T	over 16 years	over 8 years	50 - 70 %
I/T	over 16 years	over 8 years	50 - 70 %

Vocational Teachers Survey

Area	Teaching Experience	Occupational Experience	Percent Competent
I/T	11 to 15 years	2 years	50 - 70 %
I/T	over 16 years	4 years	50 - 70 %
I/T	11 to 15 years	5 to 7 years	50 - 70 %
I/T	over 16 years	over 8 years	50 - 70 %
I/T	11 to 15 years	over 8 years	50 - 70 %
MARK	11 to 15 years	2 years	50 - 70 %
MARK	7 to 10 years	5 to 7 years	50 - 70 %
MARK	7 to 10 years	4 years	50 - 70 %
MARK	7 to 10 years	5 to 7 years	50 - 70 %
SPEC	over 16 years	over 8 years	50 - 70 %
AGR	1 to 3 years	5 to 7 years	30 - 50 %
AGR	over 16 years	over 8 years	30 - 50 %
BUS	over 16 years	4 years	30 - 50 %
DVI	1 to 3 years	1 year	30 - 50 %
I/T	7 to 10 years	no occup. exper.	30 - 50 %
I/T	over 16 years	2 years	30 - 50 %
I/T	over 16 years	5 to 7 years	30 - 50 %
I/T	over 16 years	over 8 years	30 - 50 %
I/T	over 16 years	over 8 years	30 - 50 %
BUS	over 16 years	over 8 years	less than 30 %
I/T	over 16 years	4 years	less than 30 %
MARK	7 to 10 years	no occup. exper.	less than 30 %

Analysis of Vocational Teacher response to Item 9:

Enrollment in a vocational sequence should provide the student with some period of on-the-job supervised occupational experience. (Agree or disagree and explain.)

Of the 99 teachers to respond to this item, 25 or 25.3 percent disagreed, and 74 or 74.7 percent agreed.

Reasons for agreement:

I/T A/NOT A MUST BUT OK IF PROGRAM CAN HANDLE
HEC A
I/T A
BUS A/
BUS A/

BUS A/
BUS A/
I/T A/ALLOW S TO DETERMINE BEFORE ONE INVEST TOO MUCH TIME AND MONEY
AGR A/APPLY LEARNED KNOWLEDGE
WEC A/AS WORK COORDINATOR, I SEE HOW SUCCESSFUL IN DEVELOP THE WHOLE INDIVID

MAR A/BEST LEARNING IS OJT, REAL LIFE TRAINING
I/T A/CLASS AND MATERIAL COVERED HAVE ADDED RELEVANCE TO STUD
BUS A/CONCLUDING EXPER WOULD BE MORE BENEFICIAL IF S HAD CONSTRUCTIVE EXPER
MAR A/DEFINITELY
BUS A/EITHER COOP OR MODEL LAB, HELPS SHOW THE APPLICATION OF ACQUIRED SKILL

BUS A/EITHER IN RELATED CLASS OR ON THE JOB
I/T A/EMPLOYERS ALSO AGREE, THE MECHANISM SHOULD EXIST FOR THIS PROCESS
BUS A/EXCELLENT EXPER. GRADS TELL GOOD THINGS OF COOP AND IT ADVANTAGE
HEC A/EXPER IS VERY BENIFICIAL AS A LEARNING EXPER
I/T A/FINANCIALLY THIS IS AN EXPENSIVE WAY TO GO BUT $ ASIDE WAY TO GO

HEC A/FINE FOR COURSES THAT HAVE A CAPSTONE PROGRAM
I/T A/FOR SOME VOCATINONAL AREAS BUT NOT ALL
HEC A/GIVES S OPPORT TO APPLY KNOWL IN REAL WORK SITUATION
HEC A/HANDS ON EXPER REINFORCES OR CHANGES ONE MIND ABOUT CAREER GOALS
I/T A/HANDS ON WORK EXPER IS VERY IMPORTANT-PUTS SCHOOL SKILLS TO WORK

I/T A/IF COURSE SEQU IS DESIGNED TO DEVELOP A STUDENT TO ENTRY LEVEL COMP
I/T A/IF POSSIBLE, IF NOT-THEN WORK LIKE SITUATIONS COULD BE CONDUCTED IN CL
HEC A/IF S DEFINITELY PLANS TO GO INTO THE LABOR FORCE UPON GRAD
I/T A/IF S SCHEDULE & FUNDING WILL PERMIT THIS PROGRAM
BUS A/IF SEQUENCE MEANS TOTAL COURSE OFFERINGS THROUGH SENIOR YEAR

HEC A/IF THERE ARE TWO OR MORE COURSES IN A SEQUENCE, OTJ OCCUP EXPER IS IMP
I/T A/IT WOULD BE NICE BUT EVERY TIME IT IS TRIED WE KEEP RUNNING INTO RBLOC
I/T A/JOB CAN BE VERY MEANINGFUL EXPER & ANOTHER BUILD. BLOCK IN EDUCATION
HEC A/MORE VALUABLE TO HAVE ON THE JOB EXPERIENCE AND RESPONSIBLILITY
HEC A/NEED FOR BEST PROGRAM POSSIBLE, GIVES S CHANCE TO EXPAND CLASS TO WORL

AGR A/NICE, BUT IN MANY INSTANCES NOT POSSIBLE.
HEC A/NO ON THE JOB TRAING WOULD DEFEAT THE PROGRAM
AGR A/NOT ALWAYS POSSIBLE BUT SHOULD BE ENCOURAGED
BUS A/NOTHING TAKES THE PLACE OF ACTUAL WORK EXPERIENCE
MAR A/OJ EXPER IN MY PROGRAM AND FIND IT EXTREMELY VALUABLE

AGR A/OJE AND SUPERVISION IS THE APPLIED PART OF VOC ED-SETS US APART FOR CO
BUS A/OJE IS PREFERRABLE, SIMULATIONS CAN ALSO BE EFFECTIVE
HEC A/OJEXP IS ONE OF MOST VALUABLE LEARNING EXPER. DEMONSTRATES STUD COMP
BUS A/OJEXPER IS IMPORTANT IF THE STUDENT GETS A VARIETY OF EXPER.
MAR A/OJS IS AN EXCELLENT WAY OF INSTRUCT, PRACTICAL APPLIC, NO UPSET C IN S

AGR A/OJT IS A VERY GOOD LEARNING SITUATION - GOES BEYOND THE CLASSROOM
MAR A/OJT SUPPORTS THE CLASSROOM ACTIVITIES & HELPS TO KEEP THE S MOTIVATED
BUS A/OTJ EXPERIENCE GIVES S A CHANCE TO LEARN WHAT TO EXPECT FROM REAL WORK
I/T A/REALISTIC EXPECTATIONS REQUIRE MODIFICATIONS OF THIS CF ECONOMIC COND
MAR A/S CAN APPLY WHAT THEY HAVE LEARNED

BUS A/S DO NOT SEEM TO AGREE AS THEY DO NOT SIGN UP FOR JOB EXPER IN LARGE #
BUS A/S IN A SEQUENCE SHOULD BE ONE WHO HAS MADE A CAREER DECISION
MAR A/S SHOULD BE ABLE TO WORK UP TO AN OCC EXPER THEY HAVE AN INTEREST IN
I/T A/S WILL BE ABLE TO SEE WHAT THE JOB IS ABOUT FIRST HAND
AGR A/SE LEARN AND RETAIN TO A HIGH DEGREE THOSE THINGS WHICH WE EXPERIENCE

HEC A/SIMULATION IS A TEACHING TOOL--ONE TECHNIQUE IT IS NOT REALITY
HEC A/SIMULATION IS GREAT BUT ACTUALLY BEING OTJ W RESPONSIB ARE NECESSARY
BUS A/SOME TYPE OF OJT SHOULC BE OFFERED AS COOP ED, SUMMER EMPLOY, PT EMPLO
BUS A/SOME TYPE OF ON-THE-JOB OPPORT SHOULD BE OFFERED SUCH AS COOPERATIVE
HEC A/TELLS IF THE S IS REALLY INTERESTED IN THIS AREA OF WORK TESTED BY PER

HEC A/THE CAPSTONE COURSE SHOULD BE LAST IN SEQUENCE
HEA A/THE EXPER IS INVALUABLE
BUS A/THERE ARE CERTAIN THINGS THAT TEACHERS, TEXTS, CLASS CAN NOT DO
BUS A/THERE IS NOTHING MORE VALUABLE THAN ACTUAL OTJ TRAINING W WORK ATMOSPH
HEC A/THIS IS A MAJOR STRENGTH OF MY PROG, S USE SKILL OUTSIDE SCHOOL

BUS A/THIS IS AN AREA WHERE S LEARN BY DOING WHERE THEY RECEIVE EXP FOR EMPL
I/T A/THIS IS THE IDEAL, THE PROBLEM IS THE JOB
SPE A/THIS IS THE TRUE NEED FOR SPEC. NEEDS STUD IN EMR,LD,&ED
BUS A/THIS SHOULD BE AVAILABLE TO S BUT NOT ALL S ENROLLED IN BUS COUR NEED
I/T A/THIS WOULD BE IDEAL BUT OFTEN THERE IS NOT TIME IN S'S SCHEDULE

BUS A/TO THE EXTENT THE S IS READY TO BENEFIT FORM THE EXPERIENCE
BUS A/TRANSITION FROMSCH TO WORK FOR A LIVING CAN BE MUCH SMOOTHER W SUPERV
I/T A/VERY MUCH
AGR A/WE LEARN AND RETAIN TO A HIGHER DEGREE THOSE THINGS WE EXPERIENCE
HEC A/WORLD OF WORK IS QUITE DIFF FROM THE SCHOOL WORLD

Reasons for disagreement

BUS D/CAN LEARN SALEABLE SKILL WO ACTUAL WORK EXP
I/T D/CLASSROOM SIMULATION EXPER IN MANY COURSES IS BETTER
BUS D/DEPENDS ON INDIVIDUAL S & ONE'S VOC PLANS
HEC D/HECON DOES NOT HAVE OJT TRAING YET WE EDUCATE S IN SKILLS
BUS D/IT IS NOT ESSENTIAL BUT OF VALUE TO S, SHOULD NOT BE A MANDATE

I/T D/NOT ALL COMMUNIT. HAVE JOB OPPORTUNITIES TO PLACE S, SAFETY IS CONCERN
BUS D/NOT ALL COURSES PROVIDE ... OJT
BUS D/NOT ALL S DESIRE OJT, VOC SEQUENCE MORE CLEARLY DEFINES AREAS FOR STUD
HEC D/NOT ALL S NEED TO GO OUT ON A JOB FOR A LONG PERIOD OF TIME
AGR D/NOT ALSWAYS POSSIBLE WI NUMBER OF S, SHORTAGE OF STAFF, LITTLE JOB PLA

I/T D/NOT ALWAYS POSSIBLE IN THIS CITY, NOT ALWAYS NECESSARY
I/T D/NOT ON THE HS LEVEL FOR MECHANICS
AGR D/NOT REQUIRED BY PROGRAMS FO ALL STUDENTS, QUALITY IS MORE IMPORTANT
HEC D/OJEXPER IS NOT NECESSARY. STUDENTS HAVE MANY YEARS AHEAD TO HOLD JOB
MAR D/ONLY IF THE STUDENT HAS MADE SOME DEGREE OF COMMENT TO A CAREER AREA

I/T D/S SHOULD HAVE FLEXIBILITY TO STRUCTURE THE PROGRAM TO THEIR NEEDS
BUS D/SOME S DON'T HAVE MOTIVATION AT THIS POINT IN THEIR LIFE
BUS D/SOME S REALLY NEED THIS EXPERIENCE
HEC D/STUD SHOULD BE EXPOSED TO WORLD OF WORK BUT NOT FORCED GIVEUP EXTRACUR
I/T D/THIS IS NOT A NECESSARY PART OF THE TRAINING FOR ALL OCCUP PREPARATION

I/T D/TRUE FOR A LIMITED #, MANY OF OUR S ACT LIKE LITTLE BABIES W BIG BODIE
I/T D/WOULD HELP BUT NOT COMPLETELY NEEDED
BUS D/YEARS OF OBSERVATION LEAVE ME UNIMPRESSED, OFTEN JOBS ARE TOO ROUTINE

Vocational Teachers Survey

Analysis of Vocational Teacher response to Item 11 a.:

As a result of technologies that are changing the way work is done: How will courses and instruction in your vocational area be different in the future?

HEC	
I/T	
I/T	ADD COMPUTER CONTROLL WORK
BUS	ADV TYPING BECOMES WP, ACCT WILL BE AUTOMATED,MORE ADMIN SUPP SKILLS
BUS	ADVENT MICRO WILL CHANGE WAY WE PRESENT MATERIAL,
AGR	AGR WILL BECOME EVEN MORE MANAGERIAL ORIENTED ON FARM AND IN BUSINESS
I/T	ALL AREAS OF T/I MUST CONSTANTLY CHANGE W TIMES
HEC	AS TECH CHANGES WE MUST CHANGE
I/T	BASIC CONCEPTS & SKILL WILL BE NEEDED W MORE EXPOSURE TO PLASTIC TECHNO
I/T	BASIC KNOWL & SKILLS, INTROD NEW PROCESSES & MATERIALS USED BY LOCAL IND
I/T	BROADEN THE SCOPE OF WHAT IS COVERED IN CLASSES, NEED REAL LIFE EXPER
BUS	BUS AREA WILL CONSIST OF MICROCOMP & SOPH EQUIP, JOBS WILL GO TO BEST TR
I/T	CHANGE WITH THE AUTOMATIVE SERVICE INDUSTRY
BUS	COM NEED TO BE INTEGRATED IN ALL BUSINESS COURSES
BUS	COM WP, COM DP, COM AUTOM ACCOUNTING
BUS	COMPUTER & KEYBOARDING INST PREPARES S W MARKETABLE SKILLS
BUS	COMPUTER AGE WILL EFFECT EMPLOYMENT MARKET, TRAINING IS NECESSARY
BUS	COMPUTER INST IN ALL AREAS OF VOC INST MUST BE INTROD
I/T	COMPUTERS & ROBOTICS
BUS	COMPUTERS IN EVERY COURSE
HEC	COURSES WILL INCLUDE NEW TECH AS AVAILABLE TO THIS SCHOOL, COM IN FUT
HEC	COURSES WTC WILL INVOLVE MORE COMPUTER AND NEW TECH
I/T	CURR WILL ALWAYS CHANGE W NEW TECH, SKILLS TAUGHT IN LAB CHANGE W EQUIP
AGR	DEPENDS ON MONEY, HOPEFULLY UP-TO-DATE
BUS	DRASTIC CHANGES ARE IN EXISTENCE IN AREA OF COMPUTERS, WP, GRAPHICS, ETC
HEC	EQUIP IN FOOD SERVICE WILL BECOME MORE TECH & COMPUTERIZED, HANDS ON IMP
HEC	FOOD SERVICE COURSE W AN EMPHASIS ON OCCUP SKILLS VS CONSUMER HOMEMAKING
I/T	FUNDING WILL DETERMINE MUCH, NEED TO UPDATE & EVALUATE,
I/T	GREATER EMPHASIS ON ALL ASPECTS OF COMPUTER TECH, ESPECIALLY ELECTRONICS
HEAL	GREATER USE OF COMPUTERS FOR PATIENT RECORDS, DIAGNOSIS, ETC
MARK	INCREASE USE OF COMPUTERS
HEC	JOB SKILLS & DESCRIPTIONS WILL CHANGE
HEC	JUST UPDATE W NEWER MACHINES & TECHNIQUES, NOT REPLACED THOUGH
HEC	KEEP CURRENT W NEW TECH, NEW LABOR LAWS, TAX CHANGES, FAMILY STRUCTURE
HEC	KEEP CURRENT WITH CHANGING TRENDS BY READING ARTICLES, ATTEND CONFER, ET

BUS	KEYBOARDING AT 9TH, ADD WP TO CURR
MARK	MARKETING APPLICATION OF THE MINICOMPUTER
HEC	MORE ABOUT FAMILIES W 2 WORKERS AS PARENTS, SINGLE PARENT FAMILIES, ETC
I/T	MORE ANTIQUATED AND OBSOLETE IN REGARDS TO NEW TECH WO LARGE SUMS $
HEC	MORE BOYS INVOLVED, PREPARE S TO LIVE ON THEIR OWN, DECISION MAKING SKIL
WECE	MORE COM ASSISTED INSTRUCTION, MORE AUTOMATION IN JOB SITES
AGR	MORE COMMUNITY INTERACTION TO PROVIDE S W REALISTIC CONCEPT OF WORK RELA
AGR	MORE COMMUNITY INTERACTION TO PROVIDE S W REALISTIC CONCEPT OF WORK SKIL
BUS	MORE COMPUTER BASED ED, FLEXIBILITY FUILT IN CURR FOR CHANGING NEEDS OFS
MARK	MORE COMPUTER BASED, MORE ADVANCED SKILLS REQUIRED
BUS	MORE COMPUTER COURSES & INSTRUCTION IN AREAS OF ADVANCED TYPING/WP, ACCO
BUS	MORE COMPUTER SIMULATIONS, USE OF DECISION-MAKING MODELS
AGR	MORE COMPUTER TECH, MORE GENERALIZED BECAUSE OF ENROLLMENT CHANGE
AGR	MORE COMPUTER WORK, MORE TECH JOBS, MORE COMPETITIVE MARKETS
HEC	MORE COOPERATION BETWEEN BUS & SCHOOL, EQUIP IS SOMETIMES TOO EXPENSE
I/T	MORE ELECTRONICS EDUCATION & USE OF ELECTRONIC TESTERS
BUS	MORE EMPHASIS ON CAI, INCLUDING INDIVIDUAL PROJECT ON THE COMPUTERS, SIM
BUS	MORE EMPHASIS ON COMPUTERS, WORD PROCESSING, ETC.
BUS	MORE EMPHASIS ON WP, DP, KEYBOARDING, & COMPUTERS
BUS	MORE EMPHASIS WILL BE PALCE ON KEYBOARDING AND COMPUTER WORK
HEC	MORE FLEXIBILITY, NEW AREAS OF SKILL REQUIREMENTS, TRAINING ON BROADER S
AGR	MORE HIGH TECH, COM EDUC AS A USER--NOT A PROGRAMER
BUS	MORE INTENSIVE SCHOOL CURRIC & ELIMINATE COOP PROGRAMS
I/T	MORE INTERDISCIPLINARY - MANUF COMMUNIC, TRANSP CONSTRU, ETC.
BUS	MORE KEYBOARDING, MORE COMPUTERS
MARK	MORE ORIENTED TO COMPUTER FOR INVENT CONTROL & ACCESS TO INFORMATION
AGR	MORE SPECIALIZED IN COM, MORE SPECIALIZED FOR PRODUCTION AGRICULTURE
MARK	MORE SPECIALIZED, MORE TIME TO WORK ON ON THE JOB BUS ACTIVITIES
SPEC	MORE TELEVISION, PERHAPS MORE COMPUTER
AGR	MORE URBAN STUDENTS, CONTENT WILL BE CHANGING
HEC	MORE USE OF COMPUTER TEACHING NUTRITION & CONSUMER COMP, MORE MICROWAVE
MARK	MORE USE OF COMPUTERS, A NEED FOR S TO UNDERSTAND COMPUTER CASH REGIST
BUS	MORE USE OF THE COMPUTER
BUS	MUCH MORE COMPUTER ORIENTED
BUS	MUCH MORE COMPUTER RELATED, MORE INDIVDUALIZED, S AT ALL LEVELS OF COMPE
BUS	MUCH MORE EMPHASIS ON COMPUTERS, HOPEFULLY MORE SWITCHING TO NONTRAD RO
MARK	NEED TO RELY ON PEOPLE IN FIELD TO HELP TRAIN STUDENTS IN UP TO DATE TEC
I/T	NEW MATERIALS USED, NEW TECHNIQUES OF APPLICATION
HEC	NON-EXISTENT - ACADEMICS ARE TAKING OVER BECAUSE OF REQUIREMENTS
I/T	NOT AT ALL IF MONIES AND ADDITIONAL TIME FOR TRAINING EDUC

HEC	NOT SURE RE FOOD SERVICE
I/T	REQUIRE MORE SKILLS, REQUIRE MORE TECH KNOWL THAN TECH SKILL
MARK	S NEED TO BE ABLE TO HANDLE A GREAT DEAL INFOR, WORK W COMPUTERS
HEC	SEE RELATIVELY LITTLE CHANGE AT THIS TIME, SOME COM SKILL FOR ADVANC PLA
BUS	SHARED RESOURCES WITH OTHER SCHOOLS, PARTNERSHIPS WITH BUSINESS
I/T	SINCE THERE WILL BE FEWER SKILLED JOBS AVAILABLE, THERE SHOULD BE MORE
I/T	SOME NEW HIGH TECH WILL BE IMPLEMENTED INTO EXISTING CURR
I/T	SOME UPDATING BUT BASICALLY SAME APPROACH
I/T	SUTDENTS HAVE TO DECIDE THAT THEY WILL MASTER TECH. NOT TECH MASTER THEM
I/T	TEACH BASICS WHEN APPLICABLE, ADOPT NEW EQUIP AS BUDGET RESTRAINTS PERMI
DVI	THEY MUST CHANGE ACROSS THE BOARD
BUS	THEY WILL INCORPORATE MICROCOMPUTERS
I/T	THIS IS A STUPID QUESTION-EVEN BUSINESS DOESN'T KNOW EXACT ANSWER
BUS	TIME WILL HVE TO BE SPENT TEACHING KEYBOARDING AT EARLIER AGE
BUS	TOTALLY, ELECTRONICS, COM, PAPER-LESS OFFICE
I/T	TRADE WORK WILL CHANGE ONLY ACCORDING TO NEW MATERIALS ON MARKET
HEC	TRAINING ON NEW & BROADER AREAS OF SKILL REQUIREMENTS, DIFFERENT SCHEDUL
BUS	USE OF COMPUTERS
I/T	VERY EXPENSIVE COMPUTER OPERATED TEST EQUIPMENT, NEEDED FOR C CONTROLENG
HEC	WE DO NOT HAVE A VOCATIONAL OCCUPATION PROGRAM AT THIS TIME
MARK	WE WILL HAVE COMPUTER INSTRUCTION IN ALL CLASSES
BUS	WE WILL BE OFFERING MORE IN THE AREA OF MICROCOMPUTERS, WP, DP
I/T	WE WILL NOT A LARGER SPREAD BETWEEN UNSKILLED AND SKILLED
HEC	WILL ADAPT NEW TECH AS AVAILABLE TO THIS SCHOOL
I/T	WILL HAVE TO CHANGE AS THE WORLD OF WORK CHANGES
BUS	WILL USE COMPUTERS TO SHOW APPLICATIONS OF CONCEPTS TAUGHT IN COURSE
BUS	WITH ADDITION OF COM- COURSE INSTRUCTION CHANGES A GREAT DEAL
I/T	WITH OUT MONEY THEY WILL NOT BE DIFFERENT
HEC	I DOUBT CHANGE, NONE OF EVALUATION SUGGESTIONS FROM LAST YEAR ARE IMPLEM

Analysis of Vocational Teacher Response to Item 11. b.:

As a result of technologies that are changing the way work is being done: What changes will need to be made in your course content and/or methods of instruction?

BUS	
HEC	
HEC	
I/T	
HEC	ADAPT UNITS TO MICROWAVE, MORE STUDY OF FABRICATED FOODS & EFFONT ON BOD
I/T	ADD A COMPUTOR TO PRESS
I/T	ADD SUPERVISED WORK EXPERIENCE
BUS	ALL TEACHERS WILL BE ENCOURAGED & GIVEN TIME TO BECOME ACQUAINTED W COMP
BUS	ALL TIME TO LEARN BASIC CONCEPTS OF COURSE FOR TRANSFER TO COM
BUS	ALL TYPING COURSES NEED REDOING, PRESENTLY WORKING ON
WECE	ANY CHANGES TO MEET THE PRESENT DEMANDS IN THE WORLD OF WORK, MORE SOFTW
I/T	BUY MORE FILM STRIPS TO SHOW THINGS WE CAN NOT AFFORT TO ACTUALLY DO
AGR	CBE
HEC	CERTAIN UNITS WOULD BE REVISED
I/T	CLASSES NEED TO EXPAND AND BUILD ON THE FUNDAMENTALS TAUGHT IN MS
BUS	COM IN ACCOUNTING, COM IN DP, COM IN OFFICE PRACT. COURSES
I/T	COMPETENCY BASED LEARNING APEARS TO BE MOST PRACTICAL
BUS	COMPLETELY, STUDENTS WILL NEED BASICS BEFORE WE GET THEM IN 10TH GRADE
MARK	COMPUTER COMPETENCY BASED INSTRUCT, SOME RETURN TO LAPS
I/T	COMPUTER DRAFTING, MORE DESIGN TESTING OF PRODUCT DEVELOPMENT, MORE SKET
HEC	COMPUTER IS USED IN INVENTORY, SALES, DEVELOPING RECIPIES MORE COM EXPOS
HEC	COMPUTER WILL PLAY AN IMPORTANT ROLE IN INSTRUCTION FOR TEACH & RECORDIN
BUS	COMPUTER WORK IN ALL AREAS EXCEPT SHORTHAND
BUS	COMPUTERS IN EVERY COURSE
HEC	COMPUTERS WILL TAKE OVER MORE OF THE INSTRUCT & ORGANIZATION OF COURSES
BUS	COMPUTERS, WP, ETC. MUST BE MADE AVAILABLE TO S & TEACHERS NEED TRAINING
HEC	CONSTANT RE-EVALUATION OF CONTENT TO DELETE THAT WHICH IS NO LONGER NEED
MARK	CONSTANT UPDATING, COMPUTER APPLICATION
I/T	CONTENT NEEDS TO BE UPDATED TO INCLUDE THE MODERN TECH AVIL IN ELECT
I/T	CONTENT WILL HAVE TO EXPAND TO INCLUDE NEW PLASTICS, MOER FIELD TRIPS/AV
HEC	CONTINUE UPDATING EQUIP & GIVE EXPERIENCE USING THE EQUIP
BUS	COURSE CONTENT MUST BE CONSTANTLY UPDATED
BUS	COURSE MATERIALS WILL HAVE TO BE CHANGED TO INCLUDE COMPUTER USE T TRAIN
BUS	CURRICULUM MUST BE CHANGED TO IMPLEMENT COMPUTER EXPERTISE
I/T	DEPENDS ON INDUSTRY AND HOW FAST CHANGES ARE MADE

HEC	EXPERIENCES, POSSIBLE WORK EXPER IN CHILD CARE AREAS, ETC.
I/T	FUNDS MUST BE MADE AVAILABLE
I/T	GETTING NEW TEST EQUIP & SPENDING MORE TIME ON ELECTRONIC PARTS OF AUTO
BUS	GREATER HANDS ON EXPER ON MODERN EQUIP, SPECIFICALLY THE COMPUTER
I/T	HAS TO BE EVALUATED ON A YEARLY BASIS WITH LOCAL EMPLOYERS
BUS	I AM CONTINUTALLY CHANGING AND UP DATING COURSES
HEC	I NEED MORE EQUIP - UP-TO-DATE EQUIP
AGR	INCLUDE MATERIAL FOR THE AG MINDED-NON-FARM STUDENT
BUS	INCLUDE MORE HARDWARE & SOFTWARE, CLOSER CONTACT W BUSINESS, MORE INDIVI
BUS	INTEGRATE COMPUTER INSTRUCT W TRADITION LESSONS ESPECIALLY IN ACCOUNTING
BUS	INTEGRATED COMPUTER USE, MORE INDIVIDUALIZED STUDY PROGRAMS
MARK	INTEGRATION OF THE MINICOMPUTER IN MARKETING, USING COMP SIMULATIONS INS
BUS	INTRO TO COMPUTER LANGUAGE & APPLICATIONS
I/T	KEEP THE COUSES IN TUNE WITH THE TIMES, AVOID THINGS OUT-OF-DATE
HEC	LESS EMPHASIS CLOTHING CONSTRUCTION, MORE EMPHASIS ENTRY SKILLS IN FOODS
I/T	MAKE SURE WE ARE AWARE OF THE NEW UP-TO-DATE MATERIAL, USE + OUTSIDE RES
I/T	METHODS, NO CHANGES, FORESEE CONTENT AS REQUIRED
BUS	MICROCOMPUTERS IN BUS ED DEPT
BUS	MODIFICATIONS WILL OCCUR ON A REGUL YEAR BY YEAR BASIS
HEC	MORE COMPUTER
MARK	MORE COMPUTER SIMULATIONS, PRACTICAL APPLICATION OF MARKET PROBLEMS
BUS	MORE CONTENT IN LESS TIME
MARK	MORE EMPHASIS ON USE OF SCHOOL STORE AS A MODEL LAB
HEC	MORE IN DEPTH COURSE AT ALL LEVELS, SMALLER CLASSES, MORE SPECIALIZED
MARK	MORE INDIVIDUALIZED INSTRUCTION
HEC	MORE PUBLIC INFORMATION ON WHAT WE ACTUALLY DO
AGR	MORE SOPHISTICATED MATERIALS/EQUIPMENT
BUS	MORE TIME FOR COMPUTERS
AGR	MUCH MORE HANDS ON EXPERIENCE WITH EQUIPMENT FOUND IN FIELD
DVI	NA
AGR	NEED TO REFLECT AGRIBUSINESS SIDE OF AGRICULTURE
HEC	NEED TO THINK MORE IN TERMS OF FUTURISTIC EVENTS & CONSEQUENCES
HEC	NEW EQUIP
AGR	NEW EQUIPMENT, INCREASED FUNDING FOR NEW CURR
I/T	NEW SOFTWARE AND LABORATORY COMPONENTS W WHICH TO EXPER WORK
I/T	NEW TECH COMES OUT & VOC ED MUST TRY TO STAY WITH IT
HEAL	NOT DEFINITE AT THIS POINT
AGR	NOT SURE
I/T	ORGANIZATION INTO AREAS, COMMUN, MATERIALS, MANUFACTURING, POW & ENGER,

BUS PROVIDE TRAING ON EQUIP, MAKE S AWARE OF CHANGES & TEACH HOW TO CHANGE
MARK PURCHASE OF A COMPUTER & SOFTWARE, TEACH HOW COMP ARE UTILIZED IN BUS
BUS ROTATION PLANS TO GET S ON COMPUTERS UNTIL ENOUGH ARE AVAILABLE
I/T S ELECTIONS FROM DECREASING S POPUL, BUDGET CONSIDERATIONS, COURSE CONTE
I/T SOME COMPUTER HANDS ON IN AREAS OF NUMERICAL CONTROL & CAD IN PROJECT D

KEC SOME UNITS CONDENSED, NEW UNITS ADDED
I/T SOME UPDATING BUT BASICALLY SAME APPROACH, SOME MINI-COURSES FOR VARIETY
BUS STRESS WILL CHANGE TO DIFF AREAS, S MUST HAVE BASIC UNDERST FIRST SEE AP
MARK SUBJECT MATTER - INCREASE COMPUTER USES IN BUSINESS & ASSIGNMENTS
BUS TEXT & MATERIALS UPDATE, EQUIPMENT UPDATE

BUS TEXTS WRITTEN & CHOOSED SO THEY CAN BE UNDERSTOOD BY YOUNGER CHILD & ESL
AGR TRANSP OF SMALL CREWS TO WORKSITES MAY NEED TO BE PROVIDED BY SCHOOL
AGR TRANSPORTATION OF SMALL CREWS TO WORKSITES PROVIDED BY SCHOOL VS TEACHER
BUS TYP & OFFMACH--LESS EMPHASIS ON TECH SKILL MORE ON WP AND 10KEY PAD
SPEC UNCERTAIN, UPDATING TO COINCIDE W ADVANCEMENT IN TECH. OF SCIENCE

MARK UP DATING IN CURR, UP DATING INSTRUCTIONS ON THE JOB TRAINING
I/T UP-DATE OF EQUIPMENT AND BOOKS
I/T UP-DATE WITH INTRODUCTION OF NEW METHODS & MATERIALS USED IN TRADE
BUS UPDATED EQUIP, TEXTBOOK & WORKBOOKS, PRACTICE SETS
I/T UPDATED ON NEW ENGINE TECHNOLOGIES AND THEIR TESTING AND REPAIR

HEC USE COM AS LEARNING TOOL
HEC WE DO NOT HAVE A VOCATIONAL OCCUPATION PROGRAM AT THIS TIME
HEC WE HAOULD BE RUNNING A DAY CARE AND FOOD SERVICE PROGRAM
HEC WE NEED DESPERATELY TO UPDATE OUR TEXTS & AV MATERIALS
I/T WE SHOULD BE WORKING W COMPUTERS AND ROBOTS TO SOME EXTENT IN OUR PROGRA

BUS WE WILL NEED TO BE RETAINED SO WE CAN WORK W MANY DIFFERENT ABIL LEVELS
BUS WE WILL NEED TO MAKE DECIS AS TO WHAT CAN BE DELETED FROM PRESENT CURR
I/T WILL HAVE TO KEEP UP W NEW TRENDS & CODES CHANGES, ENERGY
I/T WILL HAVE TO LEARN AND USE THE NEW METHODS OF REPAIR
BUS WOULD LIKE TO START A SCHOOL JOB SERVICE OFFERING JOBS W FLEXIBLE WORK H

ATTACHMENT E - REPORT OF THE

COMMUNITY EXPECTATIONS SUBCOMMITTEE

Greater Madison Task Force
for Planning Occupational Skills Education

Final Report of:

COMMUNITY EXPECTATIONS

SUBCOMMITTEE

March 15, 1984

Submitted by: Jack Reed
Mary Kauper
Bill Morgan

ASSUMPTIONS

1. The community expects students graduating from high school will be equipped with a set of skills which make them competent workers. These skills can be grouped into three areas: basic academic/general education, employability or prevocational skills, and vocational skills. These can be defined as:

   Basic academic/general education skills are fundamental skills necessary if an individual is to be a participating and contributing member of society. These include skills such as reading, writing, computation, attendance, hygiene/dress, human relations, speaking, listening, problem solving, community/government understandings, and economic/monetary understandings.

   Employability or prevocation skills are general skills needed by all persons if they are to be effective in seeking, obtaining, and retaining employment. The Task Force defines employability skills as that part of the educational program which provides students with an understanding of the relationship among various fields of work and the development of competencies in those skills fundamental to successful initial employment. Such competencies include effective communication, computation, punctuality, attitude, grooming awareness of work requirements, and willingness to accept and manage the responsibilities of being an employee. Included are skills such as knowledge of job sources; the ability to prepare a resume, to complete an application form, to interview, to work with others, and to change; a willingness to work and to follow directions.

   Vocational skills are specific skills associated with an occupational field, based on the needs of students and the employment requirements of potential employers. The Task Force defines vocational skills as that part of the educational process which focuses on the preparation of individuals to be productive workers in the various aspects of society such as agriculture, business, industry, government and human services. Vocational education offers a range of education experiences, depending on the need of the individual students and the requirements of the work place. Throughout all vocational education, the primary emphasis is upon the development of job skills, technical knowledge and work behaviors directed toward specific occupational requirements. These include skills such as dictation and transcription; repair small engine; inspect, bleed and adjust brakes; repair electronic equipment; bathe patients; operate word processors; operate engine lathe; prepare print advertisements; food preparation; operate farm machinery; test soil samples; set up tray for dental procedures; etc.

2. Under the present educational delivery system, there are serious questions concerning the equality of vocational education opportunity. These questions pertain to the equality of vocational program content, the equality of programs' educational effectiveness, as well as to the equality of cost effectiveness.

3. The community wants an education system characterized by local control, cost effectiveness, and equality of opportunity.

A STATEMENT OF LIMITING ASPECTS

This subcommittee focused on employer expectations for high school graduates seeking entry level positions. The subcommittee limited its inquiry to expectations for basic academic/general education skills and employability/prevocational skills because another subcommittee, i.e., the Occupational Skills Opportunities Subcommittee, is making an indepth study of employer expectations for vocational skills. Information sources included the Parker Project Survey, other educational research reports and publications, staff members of the Bureau of Vocational Education - Department of Public Instruction, the expertise of subcommittee members, data gathered through a school district's survey of parental expectations as well as data gathered through the Task Force Survey. The survey was mailed to over 2250 employers within Dane County. The response rate was over 30.5 percent.

SPECIFIC PROBLEMS OR CONCERNS ADDRESSED

The March 8, 1983 edition of "Topics to be Addressed by Madison Task Force on Planning Occupational Skills Education" identified the following topic for this subcommittee:

> Throughout the nation in recent years, secondary education has become increasingly questioned as to the adequacy of its preparation of high school students for the world of work. Critics point to falling SAT scores and concerns reflected in Gallup polls. Other studies question the adequacy of students' knowledge in the basic academic disciplines as well as their work habits and attitudes toward authority. Through discussion with community employers and post-secondary educators, it has become apparent that a number of high school graduates are inadequately prepared to deal with full time work or post-secondary education. Therefore, the Task Force should explore the community's expectations for high school graduates.
>
> Question: What are the community's expectations for high school graduates in terms of competencies which students will need as individuals and as potential workers?

FINDINGS

The Task Force Survey indicated:

a. 65.8 percent of the employers responding to the survey indicated they hire recent high school graduates.

b. 28.5 percent of employers responding to the survey indicated they would offer an entry level position to a high school dropout.

c. Of the basic academic or general education skills listed on the Task Force Survey, the following percent of employers indicated high expectations for each skill:

Percent of Employers Indicating High Expectation for Entry Job	General Education Skill Area
92.3	attendance
73.0	listening
66.9	human relations
59.9	reading
52.4	computation
51.3	hygiene/dress
49.2	writing
42.5	speaking
41.8	problem solving
18.5	economic/monetary understanding
7.4	community/government understanding

d. Of the employability or prevocational skills listed on the Task Force Survey, the following percent of employers indicated high expectations for each skill:

Percent of Employers Indicating High Expectation for Entry Job	Employability Skill Area
93.8	willing to work
89.5	willing to follow directions
86.4	work with others
66.5	react to consumer/client requirements
58.8	ability to change
52.4	ability to complete application form
42.7	ability to interview
15.7	ability to prepare resumes
15.4	prior work experience

e. In both areas, general academic and prevocational, the three skills where employers indicated high expectations were essentially "soft" skills which are frequently taught in an indirect rather than formal manner in the school setting. The three highest general education or basic academic skills were attendance, listening and human relations. The three highest employability or prevocational skills were willingness to work, willingness to follow directions, and ability to work with others.

f. There were variations in skill rankings from industrial group to industrial group. However, attendance ranked #1 for all industries.

CONCLUSIONS

For this subcommittee's study, it concludes:

a. as a result of the pervasiveness of technological change, there are certain skills which all graduates should possess. These skills include: keyboarding and computer familiarity, i.e., view computers as information storage and retrieval systems and know what computers can and cannot do as well as a basic understanding of the basic principles which govern their operation.

b. employers value employees who are able to learn new tasks and develop new skills for the good of the company, who have good memories, and who are goal oriented.

c. employers prefer to hire trainable workers and provide specific, specialized skill training on-the-job.

d. under the present organizational structure for public schools in Wisconsin, it is impractical for all high schools to provide comprehensive indepth skill training for students on an equal basis. As a result there is not an equality of vocational education opportunities among Task Force member schools.

RECOMMENDATIONS

If schools are to more adequately prepare students to meet the expectations of employers, the scope of traditional general education and employability skills training must be increased.

Goal A

Schools must increase efforts to teach all students basic academic and general education skills such as attendance, listening and human relations.

Strategies for Goal A

1. At the secondary level, attendance is best taught through work experience, coop and simulation programs. Schools must review these programs and develop ways for more students to share in them.

2. A greater emphasis must be given to teaching a comprehensive set of listening skills which include an awareness of what is said, how it is said, where it is said, by whom and with what non verbal nuances. There are several programs available to teach listening; these should be reviewed so the best ones are selected.

3. Human relations skills can be taught through appropriate small group learning strategies.

Goal B

Schools must increase efforts to teach all students prevocational or employability skills such as willingness to work, willingness to follow directions, working with others and customer relations.

Strategies for Goal B

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1. These skills are best taught through work experience, coop and simulation programs. Schools must review these programs and develop ways for more students to share in this experience.

2. Team work can be taught through small group learning strategies. More emphasis should be placed on team participation activities as a preparation for the needs of business and industry. As a result of changing technologies, group performance and team work will become a bigger and bigger factor in the success of a company.

Goal C

Where it is impractical for Task Force member high schools to provide comprehensive, indepth, job specific skill training for students on an equal basis, school districts must:

1. focus their efforts on providing basic academic and employability skills, and

2. develop and implement alternative vocational education delivery structures to teach specialized vocational skills in an equitable manner.

Possible alternative vocational education delivery structures include:

1. better articulation and increased contracting with MATC;

2. development of indepth skill programs offered cooperatively between school districts within the pod structure suggested by the Articulation Subcommittee; or

3. total reorganization of the education delivery system such as:

   a. development of a 10/12 system. In this system students completing tenth grade could elect to pursue indepth skill training in a particular career in the district vocational school provided they are able to demonstrate through testing sufficient basic skills competencies needed for associate degree training.

   b. development of a 9-13 high school program. The first three years would be a continuance of basic skills training and the last two years would be opportunities for students to specialize in high school delivered indepth vocational programs or college prep programs.

   c. the development of area wide vocational high schools which juniors and seniors could attend for indepth skill training.

ATTACHMENT F - REPORT OF THE

OCCUPATIONAL SKILLS OPPORTUNITIES SUBCOMMITTEE

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Greater Madison Task Force

for Planning Occupational Skills Education

Final Report of:

OCCUPATIONAL SKILLS OPPORTUNITIES SUBCOMMITTEE

May 17, 1984

Submitted by: Audrey Lehman
Ed Killeen
Sue Rood
Merle Strong

STATEMENT OF PROBLEM

In recent years, technological improvements and other factors such as jobs lost to foreign competition and aging plants have modified the work place. The impact of these economic factors as well as the advent of lasers, robots computers and other innovations have significantly changed work in business and industry. With these changes, the skills required of workers have also changed. New positions requiring specific job training and skills in new technological areas have become available faster than the supply of skilled workers. In light of this, the Task Force should examine the occupational education programs secondary schools should provide students within the context of students' interests and abilities as well as the community's need for skilled workers.

PROBLEM QUESTION

What occupational skills education opportunities should be available to persons prior to high school graduation?

INTRODUCTION

The subcommittee believed that it was necessary to define the parameters of the committee consideration and of the report. First, it was not our thought that this study should concentrate on the general education skills which we accept as being of critical importance to all students and potential employees. This decision was not made to depreciate the need for basic skills but rather to respond to the charge of looking at occupational aspects of student preparation which are in addition to the basic skills. Much has already been written about basic skills and there are many initiatives underway to improve the teaching of basic skills that are important to all students and potential employees.

We recognize "career education" as an important part of the school curriculum. Career education being defined as an articulated occupational continuum beginning at the kindergarten and extending through adulthood. At the K-6 level it should be designed to assist learners in becoming aware of work in our society. The second level which approximates the middle school and early high school years should provide students opportunities for the better understanding of themselves, particularly in relation to the world of work, and of a prime importance should provide opportunity for occupational exploration. The third level, which is of most importance to this study, is that of occupational preparation. It is at this level that tentative educational and occupational choices should have been made by each student in order for the student to be involved in a curriculum emphasis that will lead to appropriate further education and saleable occupational knowledge and skills.

Career guidance which should be a very integral part of the total career education concept has not been given a major focus in this report, however, it is believed that guidance personal, educational and the career aspects are important at all levels of the K through 12 education. It is further recognized that the career aspects of guidance are often shortchanged and therefore, need additional emphasis.

For the purpose of this Task Force, the term occupational skills has been used which has been defined as including (1) vocational education and (2 (2) employability skills training.

> Vocational education is that part of the educational process which focuses on the preparation of individuals to be productive workers in the various aspects of society such as agriculture, business, industry, government and human services. Vocational education offers a range of education experiences, depending on the need of the individual students and the requirements of the work place. Throughout all vocational education, the primary emphasis is upon the development of job skills, technical knowledge and work behaviors directed toward specific occupational requirements.
>
> Employability skills training refers to that part of the educational program which provides students with an understanding of the relationships among various fields of work and the development of competencies in those skills fundamental to successful initial employment. Such competencies include effective communication, computation, punctuality, attitude, grooming awareness of work requirements, and willingness to accept and manage the responsibilities of being an employee.

This report, then, is primarily concerned with occupational education as defined, with a major emphasis on vocational education. The rationale for this is that while all phases of education are felt to be important, it is the preparation phase where least consideration has been given by other study groups. This, also, is the area of greatest challenge for the high school level.

Occupational Education, as earlier defined, should serve all students prior to their graduation or leaving the secondary school. It seems obvious that employability skills are a requirement for everyone. While it may be less obvious that vocational education as earlier defined is for everyone before leaving high school, the following points should be considered in making this judgement.

Vocational education should serve: (1) those who will be going directly into the employment market, (2) those who will be seeking further education in a post secondary occupational curriculum and (3) those who may plan to go to college. Some may wish to debate the later category, however, experience and research will show that not as many students go to college as indicated they will and also the percentage that persist to complete the degree is a much smaller number. While guidance counselors can give a reasonable estimate of the percentage of a high school graduating class that will enter college, they have real difficulty in determining which students will actually pursue the degree and which students will persist.

ASSUMPTIONS

Work does have a role in a person's life. The quality of one's life and the ability to sustain that quality is, in most part, due to the individual's ability to perform work. Aside from the economic aspect, individuals obtain a sense of accomplishment and satisfaction from the challenge and meaningfulness of work. Research shows that it is related to health, self-esteem and longevity. The work environment also provides a means of socialization for people that encourages interaction and cooperation to accomplish a task.

All work has value and purpose and all tasks are necessary to sustain an operation. All workers are part of the team to accomplish the task. Team building is an important element of the work environment. Through the process of team building, each person has worth and value and with individual talents contributed to the team, the team will accomplish synergism. The quality of one's life is enhanced through this process.

All members of society benefit financially from work. It becomes society's responsibility to invest the fruits from this work in the next generation of workers. Today's contributions are an investment in the future of our society.

Changes taking place in the work environment are both revolutionary and evolutionary. Revolutionary conceptual changes are seen for job tasks and job skills, but the process to complete the change is evolutionary. Therefore, incremental changes are taking place in a progressive fashion. Job skills and tasks are moving in an evolutionary manner as they move forward, building to the future. Following is a list of beliefs developed by the committee:

1. Work has value in our society and most persons will need to work.

2. That since a large percent of students, 60 percent as a statewide figure, will enter the workforce at or before completion of high school, the public schools have a responsibility to prepare students for employment at the high school level.

3. Occupational preparation should be built on a sound general education including adequate skills in the basics, however, it is recognized that vocational education can and should, also, contribute to the strengthening of the basics. This can be done in many ways but particularly through providing an opportunity to make application of basics thus giving meaning to them.

4. Employability skills, as defined earlier, are very important for all students and should be a part of the curriculum for all students.

5. That the Madison area schools are anxious to meet the needs of all students and will provide the necessary leadership and resources to strengthen programs.

6. With all the changes going on in our society, there are still constancies that need to be acknowledged. Some occupations will remain constant through this change. (Note: Life/work planning, pg. 8.)

7. The proportion of jobs in the manufacturing sector is declining while the proportion in the service sector has been increasing.

8. As the proportion of jobs change in the manufacturing sector and service sector, the diversity of jobs within each sector is changing also. Some jobs are more knowledge-intensive while others are broken into discreet routine components.

9. Most young people today enter the labor market through jobs in retailing and consumer services rather than through jobs in farming or manufacturing. Since these service jobs generally require more education than those in manufacturing, we conclude that structural shifts in the economy will probably require, on the average, more rather than less education of employees. Given the aspirations of most people to advance in their careers and given the structural changes in the economy affecting the skills required in jobs, it may well be that young people need better education and training to prepare for their careers. (Education for Tomorrow's Jobs, pg. 8.)

10. The importance of technological innovation for vocational education programs can scarcely be overestimated. We know there is change, but little agreement on how these changes effect training and alter jobs.

11. Changes in the ways in which information is processed are affecting a large porcion of jobs. Fifty-five percent of all U. S. workers in 1980 were employed in information-related occupations which required generating, storing transmitting or manipulating data.

12. Fundamental changes in the American economy have had dramatic effects on the nature of jobs. Some of these changes include: types of goods manufactured in the United States, ways goods are produced, types of service sectors, the position of the United States in the world economy, and the private sector's response to technological innovation changes in the American economy and in the way work is performed will continue to have influence on the nature of jobs. Constant monitoring of these changes are important functions of vocational educators. It is also important when changes impact job performance modification be incorporated into an occupational training program.

13. Small business plays a critical role in absorbing new workers into the work force and provides the first job experience for two out of three workers. Jobs generated by small firms have a greater probability of being filled by younger, older and female workers. The report goes on to state that 67% of workers in the prime working ages of 25-54 were employed at firms with 500 or more employees compared with 56% in the smallest companies. (Small Business - A Report To The President, March 1984)

RECOMMENDATIONS

The committee was most concerned with recommendations which focus on vocational education, instruction in skills and knowledges directly related to an occupation. However, recommendations will be made in three categories, (1) vocational education, (2) employability skills, and (3) general education. These three components must all be a part of the preparation of a successful worker.

Vocational Education

1. That occupational education become a central purpose of the Madison area schools.

   Discussion

   Work is central to the lives of almost all individuals and it will continue to be into the foreseeable future. The well-being of our nation is, also, dependent upon a productive citizenry. Since the greatest percent of our youth enter the work force immediately upon finishing high school or dropping out, it is imperative that public schools provide youth the type of education that will help them to be successful in the work place.

2. That the job preparation dimension of occupational education be further developed and expanded at the high school level.

   Discussion

   The weakest link in the occupational preparation program in the Madison area schools is undoubtedly at the preparation phase. This is not to suggest that the career education aspects of occupational awareness at the elementary level and the occupational exploration dimensions of the program at the middle school and early high school years should not be given attention but rather to suggest that we fail the many youth who will be going directly into the work force if we do not provide the opportunity to develop specific job knowledge and skills at a depth required to successfully enter and persist in the work force.

3. A variety of delivery systems should be considered for making sound vocational preparation available.

   Discussion

   The structure that has been traditional in Wisconsin for providing vocational education is the home high school. This no longer should be considered as the only option as means are explored to increase the opportunities for all youth to have occupational preparation in a range of occupations. Other options may include: (1) develop an area high school, (2) contract with the post secondary system, (3) have several high schools specialize in a general employment area, such as business, trade and industrial, or service occupations, or (4) a combination of the above.

4. Closer working relationships should be developed with the business/ industry community.

   Discussion

   Functional occupational advisory committees are a must for every vocational education program. Such committees can be a first link with the private and public employment sectors. In addition, linkages should be established with business and industry associations and with selected businesses and industries.

5. Occupations and/or occupational clusters should be studied indepth for potential for development of specific training programs.

   Discussion

   While there was some expectation that information could be gathered by a somewhat general employer survey, this proved not to be realistic. Employers often respond in terms of employability skills (the basics, be on time, have a good attitude, be able to think) even though specific job skills, such as typing at an acceptable level, are required in order to be considered for the job. The next step is to identify potential training area and then to identify very specifically the knowledge and skills and other specific requirements for employment.

6. There should be a commitment to indepth programs with quality and rigor, with enough time allotment to make high school graduates competitive in the job market and/or qualified for advanced placement in a post secondary program.

   Discussion

   Time allotments for vocational programs at the present tend to be only one period a day. This is time for exploration of an occupation but not enough time to develop an employable level of knowledge or skill in an occupation. For this reason employers do not seem to have an expectation that they can get a person from the high school with much occupational skill and knowledge and, therefore, feel that they must recruit from the post secondary level. Also, the skills and knowledge that students may wish to receive credit for in a post secondary vocational or technical program may be so minimal in terms of the total requirements that it is not worthwhile to try to evaluate them.

7. Vocational programs should be competency based.

   Discussion

   In order that students and employers may know the specific skill competencies attained, a certificate of completion that recognizes the component parts of an occupation that has been learned by the student should be provided. This method of instruction and student accountability will make it easier to articulate with post secondary programs and to facilitate transition into the work world.

8. Occupational training in the areas of health related occupations, secretarial services, retail, and food service should be maintained and expanded in the Madison area schools.

Discussion

As stated in Recommendation 5, there is a need to study indepth other occupational training programs. However, the committee does feel because of the number of health related institutions, financial service establishments, and retail business the employment need of these employers will merit the suggested occupational training programs. These employment areas are also stated in the top ten Wisconsin occupations with projected openings from 1980-1990.

Employability Skills

1. Employability skills are important for all students and should be a part of the curriculum for all students.

Discussion

Employability skills are important for all aspects of work. The development of these skills should be included in the educational program for all students and should be a planned integral part of the curriculum.

2. Career development models should be presented as part of the employability skills component.

Discussion

Provide students with an understanding of labor market compensation scales, the hierarchy of positions within occupational careers and the necessary combination of education and experience necessary to advance a career. Students should study models of career development. Lacking such an appreciation, students will not have sufficient knowledge to guide their own occupational advancement.

General Education

1. Students need an understanding of the American economic system and how business and industry operate within that system.

Discussion

Students need an understanding of the business organization and factors that have an impact on a business in order to participate in a business organization effectively. It can also provide an avenue for students to utilize their vocational skills by ownership of a small business.

2. Technology Education should be integrated into the curriculum of the Madison area schools.

Discussion

Technology is a part of our society. Technological innovation will continue to expand and become an integral part of our homes, schools and work. Some go so far to say the future of our society depends almost entirely on our ability to adapt and prepare for advancing technology. Students should comprehend the use of technological devices such as computation, information and communication, have the skills to use technology for personal and work related purposes and possess an understanding about the role technology has in the society.

3. The opportunity to acquire "learning to learn" skills should be a part of every student's educational experience.

Discussion

Basic skills are being expanded to include the learning to learn skills of problem solving, analyzing, reasoning and conceptualizing. These skills are important in helping students cope with a changing work environment. Coupled with traditional basic skills, a foundation is provided that will enable people to learn over their lifetime as new knowledge is needed.

STRATEGIES FOR IMPLEMENTATION

Vocational Education

#1 1. Provide inservice meetings for school district board members, administrators and teachers in the Madison area schools to inform them of the philosophy and mission of vocational education, to increase their awareness of the potential for vocational education to serve all high school students and to help them understand the role vocational education can serve to meet the needs of students.

2. Review the mission or goal statements on education of each participating school district with the purpose of having occupational preparation included as a major purpose.

3. Conduct a study to identify the excess costs for occupational training programs at the high school level and then budget an appropriate level of funds for these programs.

#2 4. Form an Occupational Advisory Council made up of community business leaders, appointed for a specified time period by the school boards of the districts participating on the task force. The Council would be advisory to all the school superintendents and school boards. The tasks of the Council would include such activities as, identification of area employment needs, monitor employment need changes, student follow-up activities, program budget recommendations, staff development programs, student placement and occupational training program evaluations. Subcommittees would be appointed by the Council to handle the various activities of the Council. These subcommittees would be comprised of community business, industry, labor, government and education representatives.

5. Plan strategies for an indepth study of occupational education needs in each of the traditional areas.

6. Organize area occupational advisory committees for each program of training to help strengthen the occupational training programs, to help identify specific training needs, and to promote the assignment of adequate resources for program success.

7. Develop occupational steering committees in new occupational training areas as identified by the occupational advisory council.

#3 8. Conduct a feasibility study of the potential for developing an area occupational training high school that could serve the schools in the Madison area. In such a school, the necessary resources of specialized faculty, facilities and equipment could be concentrated to provide indepth training.

9. Explore a possible relationship with VTAE District 4 (MATC) for the training of greatly increased numbers of high school students.

10. For some specific units of instruction, consider utilization of business's space, equipment and expertise. Attention must be given by the high school's professional staff to aid business training staff in the educational process of high school students.

#4 11. Foster partnerships between the education sector and the business, industry and labor sectors.

12. Employ occupational training teachers on a twelve month contract. Have this staff spend eight to ten weeks in a community work environment, like or similar to the occupational training area he/she teaches.

13. Provide opportunities for middle school and high school guidance staff to visit and interact with community employers to obtain a more realistic awareness of employment needs.

#5 14. Provide a centralized location of resources to aid Madison area staff in the planning, implementating, monitoring and evaluating of occupational training programs to ensure continuity of quality programs.

#6 15. Construct an inservice program for area school boards, administrators and staff to visit other states that have exemplary indepth high school occupational training to study these programs.

16. Conduct a study, using as a base the companies stated in Peters and Waterman's book In Search of Excellence, to identify the characteristics and training background of the employees and to compare qualities of the workforce to qualities taught in high school training programs.

#7 17. Integrate competency instruction into all occupational training programs. Establish standards for all occupational training programs with the aid of community employers and MATC staff. Provide inservice training to all the area staff and administrators on an exemplary model to be used by all districts.

18. Document student's competencies upon completion of the training program.

Employability Skills

1. Encourage and support interaction among educators, students and representatives of the business community.

2. Encourage schools to expand their educational goals to state that employability skills be integrated into the total school curriculum.

General Education

1. Address the use of technology in the curriculum areas of science, industrial arts and math; and address the affects of technology in the social science curriculum.

2. Aid students to acquire an accurate awareness of how "main street" functions.

3. Reinforce career education concepts in grades K-12.

4. Develop ongoing staff development programs to keep personnel informed on economic and employment concerns and issues.

ATTACHMENT G - REPORT OF THE

STUDENTS WITH SPECIAL NEEDS SUBCOMMITTEE

Greater Madison Task Force
for Planning Occupational Skills Education

Final Report of:

STUDENTS WITH SPECIAL NEEDS SUBCOMMITTEE

May 7, 1984

Submitted by: Cindy Huber
Pat Mooney
Chuck Stovall

WHO ARE LEARNERS WITH SPECIAL NEEDS?

"Special" suggests something that is different, unique, exceptional, or highly individualized. As human beings, each of us has characteristics that are special, including personality traits, physical characteristics, occupational choices, and preferred learning styles.

The word "needs" relates to a want or demand that must be satisfied if success is to be attained. Each term independently implies an unsolved mystery and, when combined, the phrase "learners with special needs" implies the necessity for arriving at a personal solution to each individual's "learning mystery." Very simply, a person who has not been making normal progress through school and who appears to be headed for failure in school may be identified as a learner with special needs. Even though learning difficulties are specific to each person, a variety of common terms are used to describe them.

Special needs is an umbrella term that includes both the populations of the handicapped and the disadvantaged. The learner with special needs and the school personnel may become involved in adjustments to one or a combination of handicap-related emotional instability, learning disabilities, retardation, speaking difficulties, sight and hearing impairments, or physical handicaps. Other special needs might be a lack of opportunity for learning because of social, cultural, or economic disadvantages. Basically, we all have or have had special needs, but the key factor is whether or not we have been able to adjust to or overcome the handicaps or learning disadvantages that we once experienced.

(Credit: Career Exploration and Preparation for the Special Needs Learner. Ronald J. Lutz and Allen L. Phelps. Allyn and Bacon, Inc., 1983.)

IDENTIFICATION AND PROGRAM CLASSIFICATION OF SPECIAL NEEDS STUDENTS

When implementing vocational education services for students having special needs, it is necessary to first identify these students. Then, it is necessary to assign them to an appropriate learning program designed to accomodate their learning needs which involves diagnosing and classifying the cause of the student's learning difficulty.

Because of the logical relationship between identification and classification, it is easy to conceptualize these two processes within a "causality" framework. This leads to unfair generalizations about particular subpopulations which stereotype individuals unfairly. Therefore, it is necessary to carefully distinguish between the processes of identification versus classification of special need students.

Identification is the process of selecting students to participate in special needs programs. Unlike classification and programming which are based on causality, identification is based on objective observation of each individual student's learning behavior. Identification focuses on the effects of a

disadvantagement or special need. Objective measures of individual student achievement such as grade level performance, effort, attendance, interpersonal relationships, etc. form the basis for identifying special need students. In other words, academic performance significantly below grade level, significant variations in effort, significant absences from school, discipline problems, or interpersonal relationships indicate the presence of a potential special learning need necessitating support services or modified vocational education learning programs to remediate the special learning need.

After students are identified as potentially having needs requiring special programming, it is necessary to diagnose those needs, i.e., to determine what caused the student to be in need of support servces or a modified vocational educational program. Based on the diagnosis, special need students can be classified according to their needs and assigned to supportive services or modified vocational education learning programs designed to remediate the special learning need. Therefore, unlike identification processes which focus on effects, classification processes focus on the cause of the special need.

Therefore, the process of classification -- unlike identification -- is based on causality. Federal regulations recognize three major classifations of special needs students which are: "handicapped," "limited English speaking ability," and "disadvantaged." In order for students to be classified as having a "disabling/handicapping condition," they must undergo Wisconsin's legally mandated multi-disciplinary team process. Disabling/ handicapping conditions identified in Wisconsin include: mentally retarded, hearing impaired, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, other health impaired, or with a specific learning disability.

The need for supportive services or a modified vocational education program may be a result of "limited English speaking ability." A special needs student who uses a language other than English more frequently than English in an instructional setting according to teacher observation is "of limited English speaking ability."

The need for supportive services or a modified vocational education program may be a result of the fact that he/she is "disadvantaged." The "disadvantaged" condition can be either academic or economic.

The student is "academically disadvantaged" when he/she: 1) lacks reading and writing skills, 2)lacks mathematical skills, or 3) performs below grade level.

The student is "economically disadvantaged" when: 1) family income is at or below national poverty level, 2) parent(s) or guardian of the student is unemployed, 3) parent of student is a recipient of the public assistance, or 4) student is institutionalized or under State guardianship.

ASSUMPTIONS

1. Students with identified special needs populate the continuum of the general student population. Therefore, the occupational skills education programs in our schools must be sensitive to these special characteristics as they respond to the overall needs of all students.

2. Since all students have unique learning styles, needs, and behavior repertoires occupational skills programming must capitalize on each individual's strengths, skills, and talents to insure that barriers to a student's post high school success are minimized. The identification of special needs characteristics involves a process that is a systematic and objective plan for promoting educational experiences for each student.

3. The learning environment encompasses not only the school, but also the private and public sector community. Parents and the community should be proactively involved in all phases of the educational process.

4. Occupational Skills Education Programs:

   - focus on the full development of each stud

   - provide students with the guidance, counseling, and instruction needed to develop self-awareness and self-direction; expand occupational awareness and aspirations; develop appropriate attitudes about the personal and social significance of work.

   - encompass the total curriculum of the school and provide a unified approach to education for life which includes the acquisition of saleable, entry level marketable skills upon leaving high school.

   - encourage all members of the school community to share responsiblity and develop cooperative relationships among the various disciplines to actualize the best possible educational experience for each student.

   - provide experiences that promote career and occupational awareness, orientation, exploration, and skill development. These experiences should strike a balance between content and experiential learning permitting a maximum of real world occupational activities.

A STATEMENT OF LIMITING ASPECTS

This subcommittee has focused primarily on the following types of students: the high risk/potential dropout, the out-of-school student, and the student with a handicapping condition.

The processes utilized by this subcommittee have included consultation with recognized state and national experts in dropout prevention and special needs

programs. The subcommittee has reviewed its proposed recommendations with selected community based agencies, school administrators, and other educators. Their comments, suggestions, and criticisms have been analyzed and used to modify this present draft of the subcommittee's report.

A particular limitation the subcommittee has contended with is the dilemma of developing specific versus general proposals. If the proposals are too general, they become meaningless. If they are too specific, they become targeted to a single situation within a single school district.

SPECIFIC PROBLEMS OR CONCERNS ADDRESSED

The March 8, 1983 edition of "Topics to be Addressed by the Madison Area Task Force on Planning Occupational Skills Education" identified the following topic for this subcommittee:

> A diversity of student abilities, interests, motivational frameworks and learning needs confront today's educators. Several diverse groups which require specialized programming can be identified such as marginal, gifted, handicapped, and potential early leavers. For occupational education programs to be effective, these unique sets of learning needs among students must be recognized in planning occupational education programs. Therefore, the Task Force must consider the types of support programs which are necessary to meet the learning needs of diverse student groups.
>
> Question: For occupational skills education, what support programs should exist for marginal, gifted, handicapped, and potential early school leavers?

CONCLUSION/RECOMMENDATION

Occupational skills programs should respond to the varying needs of individual students and should provide all students with equal opportunity and access to occupational skills training as well as with the necessary support services to help students succeed and overcome barriers to occupational training.

Goal A

Within the school, the delivery of occupational skills education to special needs students is shared by the entire school faculty. Specific vocational programs shall be developed to maximize each student's potential. Training in applicable employment as well as job specific skills is the responsibility of vocational personnel in conjunction with appropriate support services specialized staff. For each individual student, however, the particular responsiblities of vocational and specialized support services staff in providing employment training shall be determined by the unique needs, abilities, and learning style of the individual student.

Strategies for Goal A

1. Since providing educational programs for special needs students to maximize their vocational and intellectual potential involves the complex interrelationship of various faculty departments and groups, a building level team should be established to develop an individual education and training (for employment) plan for each of the special needs students. In addition, this building level team should establish the needed coordination and supervision for the implementation of the individual education and training for employment plans.

   This building level team should consist of a building administrator, vocational teacher(s), academic teacher(s) specialized support services staff representing various support programs. The purpose of this building level team will be to: (1) review the assignment of students to special programs, (2) coordinate the operation of these programs, (3) provide a safety net program to identify those students in need of specialized education programs but not in need of exceptional education needs. This safety net program involves an easily accessible referral mechanism for teachers and a prompt evaluation of these referrals.

2. For vocational education programs with special needs students to function effectively, it is necessary for faculty and administrators to understand and appreciate their respective roles.

   The academic faculty helps students to develop fundamental basic skills needed for success in life as well as basic employability skills.

   The vocational faculty helps students to develop specific job skills needed for employment as well as specialized employability skills.

   The specialized support services staff, i.e., school psychologists, school social workers, special education teachers, talented and gifted teachers, school-within-a-school staff, program support personnel, etc. help students to develop the basic academic, employability, and vocational job skills. However, their unique aspect of their role is to provide the student and those other staff members who interface with the student those support services which are essential for individual students to achieve their

Goal B

A comprehensive occupational skills curriculum capitalizing on the unique skills of each individual, should be accessible to <u>all</u> students. This curriculum should provide a continuum of experiences that enhance the levels of occupational preparedness of each student to promote the likelihood of post secondary success.

Strategies of Goal B

1. Student Focused Strategies

   a. Placement of a special needs student in a vocational program must be based on a student assessment. This will insure that student strengths, interests, aptitudes, attitudes, and abilities can be identified and capitalized. Special needs students and their parents or guardians should be involved in all program evaluation and placement activities and processes.

   b. A variety of awareness, orientation, exploratory, and skill development activities should be provided for each student in a sequence meaningful to that individual. These experiences will assist the student to conceptualize the importance of all kinds of jobs and work as a means to develop a productive way of life.

   c. Appropriate individualized education programming should be developed in concert with each student and his/her parents to insure that maximum educational experiences, courses, or work experiences are available. This may include the modification of instructional materials and/or equipment or the learning environment.

   d. Course content should be based on post-secondary goals, focusing on cognitive, vocational, affective and psychological information.

   e. Opportunities for alternative experiences unique to the learning styles/needs should be made available to all students.

   f. Linkages between public and private sector agencies, employers, educational institutions, etc. should be established to safeguard the educational welfare of special needs students. Effective advisory committees can help ensure the development and operation of these linkages.

   g. Placement and follow up services should be provided to assure each student an effective and smooth transition/adjustment from school to work. In particular, the school should help develop linkages between the individual special needs student and appropriate local community agencies that specialize in providing this assistance.

2. Staff Focused Strategies

   a. A comprehensive and ongoing program of staff development and revitalization should be developed. This program is to insure that all staff have the sensitivity and skills to deal effectively with special needs youth. However, attempts should be made to assign special needs students to staff who work well with these students.

b. Teacher centers to serve as materials and resource repositories should be developed and maintained within each pod. Materials in their collections should reflect the special needs of students served in the respective pod.

c. Information gathered from student, school, parent, community, business and industry, and advisory committee assesment/evaluation should be used for program improvement, modification, and implementation. The quality and involvement of special needs students in vocational courses should be regularly monitored by locally appointed personnel.

d. Teachers should identify and stress competencies special needs students need to attain in vocational education courses. A team composed of people who are aware of the student's special needs should develop appropriate ways to demonstrate, teach, and evaluate the needed vocational competencies. Participants on this team will vary with the unique special needs of each student; however, the involved vocational teacher, special education staff, parents, community resource people etc. should be involved as needed.

e. Monies should be made available on a competitive basis to promote innovative or extend proven programs, projects, or staff development activities which benefit special needs students.

f. Clear lines of administrative responsiblity for special needs programs should be established. However, staff operating these programs should have the necessary flexibility to determine appropriate policies for these programs which may be different from regular school policies.

g. Vocational advisory committees should have members which represent the interests and/or needs of special needs youth.

h. School personnel should be trained in strategies/techniques that would promote more positive parental involvement in all aspects of programing available to their children.

3. <u>Parent Focused Strategies</u>

a. Positive cooperative working relationships involving both parents and staff that center around the development and implementation of a comprehensive vocational plan for special needs students should be enhanced.

b. Outreach activites need to be developed to encourage parent understanding and support participation for the program (e.g. advisory committees, program evaluation, parent training, etc.)

Goal C

The establishment of partnerships involving Board of Education, educational facilities, employers and community based agencies is essential to guarantee the delivery of quality occupational skills education to special needs students.

Strategies for Goal C

1. In order for this network to function effectively, it is necessary to identify the types of contributions each subgroup in the network can perform. While it is impossible to identify all the possible contributions each of the various groups can make, the following suggestions are provided as possible guidelines.

   Administration -- provide leadership, support and commitment for integrating special needs students into occupational skills training programs and making these programs accessible to all special needs students.

   Allocate sufficient resources of staff time, dollars, facilities, etc. to vocational programs integrating special needs students and/or to make these programs more accessible to special needs students.

   Provide sufficient time and interest to monitor the functioning of vocational programs which integrate students with special needs and to evaluate the congruence between program outcomes and student needs.

   Employers -- provide opportunities for shadowing, for work experience sites, career exploration, etc. needed for training special needs students. Participate on advisory committees. Help identify curriculum needs, student skill needs, and opportunities for teacher training and experience. Employers are particularly useful in validating student achievement/competence gained through the vocational program as well as provide references for students. They can help in program evaluation and serve as a source of good public relations for the programs.

   Foremen/Supervisors -- participate on advisory committees, confer with teachers concerning student performance and progress, and/or problems which need mutual attention. Serve as classroom resources.

   Teachers/Faculty -- develop an awareness of vocational opportunities for special needs students as well as an awareness of current technology. Translate employer needs to students and student needs to employers. Coordinate and supervise vocational skill assessments for special needs students in mutual career development planning activities. Coordinate vocational education and the academic basics to ensure students are academically prepared for the vocational program of their choice. Teach and/or reinforce basic academic skills through their integration into the vocational curriculum. Teachers and program personnel should

provide worksite supervisors and foremen with inservice to promote an appropriate understanding of the program, the students involved, and the roles/responsibilities of all concerned.

Boards of Education -- a commitment to support vocational education programs which integrate special needs students or make vocational training more accessible. Encourage administration and staff to place a special emphasis on these programs. Provide needed resources and accountability mechanisms. Evaluate programs so they are congruent with community and employment needs.

2. An effective vocational training program which integrates special needs students and/or makes these courses more accessible to those students may require modification of tasks, facilities, equipment, expectations, etc. These modifications may be needed in the school and/or the work site but are essential so all students can function in the program.

3. Establish a Special Needs Coordinating Council for each pod. This group would report to principals and LVECs directing the respective pod. The function of this Council would be to provide a forum for cooperative planning and implementation of vocationally oriented programs for special needs students. The membership on this Council should be made up of people such as: one teacher from each vocational area, a school administrator, an employer (manager), a foreman/supervisor, a minority services coordinator, special education personnel, a representative of local post-secondary technical schools, a community service agency representative, etc.

ATTACHMENT H - REPORT OF THE

LINKAGES WITH PRIVATE INDUSTRY SUBCOMMITTEE

Greater Madison Task Force

for Planning Occupational Skills Education

Final Report of:

LINKAGES WITH PRIVATE INDUSTRY

SUBCOMMITTEE

May 10, 1984

Submitted by: John Bolles
Barb Hagens
Reinhold Meihsner
Harold Polzer

SCHOOL - BUSINESS PARTNERSHIPS

Quality education is a major national concern. Criticisms and suggestions are coming from all directions. Through all of the debate about the direction in which education should proceed, however, there seems to be consensus regarding the need for strong school business-partnerships.

Working relationships between individual schools and the business/industrial community have existed in some fashion for many years. These relationships include scholarships for graduating seniors, career days, summer youth employment, work/experience/cooperative programs, etc. However, this approach to augmenting the educational experiences of students is now national in scope and is viewed by educators and business people as essential.

ASSUMPTIONS

1. Interest in school-business partnerships continues to grow because an increasing number of educators and business people recognize the need to involve business, industry and labor in the educational experiences of their students. Due to reductions in force and shrinking of funds as well as rapid changes in technology, educators are forced to find new and better ways to provide first-class learning experiences for all students.

2. School-business partnerships represent valuable components of the educational enterprise. By providing work experience opportunities, loaning personnel, updating teachers, granting funds, and actively supporting public schools, the business and industrial communities make contributions that cannot be measured in dollars and cents. Schools and business working together to produce better students and better employees, is a welcome concept.

3. Schools working with business, industry and labor to better prepare our students represent investments that never stop paying dividends. Our dividends will appear in the form of a more literate society, better prepared employees, and an America that is proud of its schools.

4. The business, industry, and labor sectors of the Madison area provide a strong basis of support for school - business partnerships. Businesses are eager to share their staff, their expertise, and their physical resources, however they are reluctant to donate additional dollars to fund school programs.

5. In addition to learning occupational skills, students need assistance in making the transition from school to work. Since each student is an individual, each student has different needs and requires different forms of assistance in making this transition.

6. The development of school-business partnerships to train future workers is the mutual responsibility of the school and the businesses within the school district.

A STATEMENT OF LIMITING ASPECTS

In addressing school-business partnerships, this subcommittee focused primarily on ways the school-business partnership can assist students in further developing their employability and occupational skills through a variety of work experience programs.

The subcommittee did not focus on ways business can assist in promoting staff development programs for teachers through various types of summer work experiences, exchange programs, or shadowing experiences.

In developing this report, the subcommittee relied on a variety of data sources. These include local school district vocational education reports, the Stout Study, the Parker Study, and the Task Force Survey which was mailed to over 2250 employers in the jurisdictions of the eight school districts participating on the Task Force. The survey's return rate was 30.5 percent.

In addition, the subcommittee relied on the personal expertise of its members. This subcommittee met with Jim Gray, a representative of the American Society of Training and Development, and Arleen Michaels, supervisor of coop training at Nicolet Instrument Corp. Audrey Lehman frequently joined the subcommittee's discussions and generously shared her insights and expertise.

SPECIFIC PROBLEMS OR CONCERNS ADDRESSED

The March 8, 1983 edition of "Topics to be Addressed by the Madison Area Task Force on Planning Occupational Skills Education" identified the following topic for this subcommittee:

> In the Madison area, a variety of training programs and facilities are maintained by area businesses, industry, government, labor and other private organizations. In some instances these training programs and facilities may be shared with secondary schools in the Madison area. Therefore, the Task Force should review occupational training programs offered in all sectors of the Madison area in an attempt to identify areas and strategies for sharing training resources.
>
> QUESTION: What training opportunities exist in business, industry, government, or from labor or private organizations that could be utilized by high school age youth?

FINDINGS

1. Based on responses of employers to questions on the Task Force Survey, the private sector has a strong interest and support for developing school-business partnerships to assist local school districts in providing students with work experiences. Initial data analysis shows:

   A. 36% of the respondents indicated a willingness to work with or to explore ways to work with area high schools to hire and train new employees in entry level positions.

   B. 20 percent of the respondents indicated an interest in using or exploring ways for using training facilities located in high schools for training their employees.

   C. 40 percent of the respondents indicated a willingness to develop or to explore ways to develop partnerships with public schools to help provide on the job training or job shadowing programs.

   D. 25 percent of respondents indicated they are currently involved in partnerships with public schools to help provide on the job training or job shadowing programs for high school students.

   E. 15 percent of the respondents indicated they are willing to share training facility with Madison area schools.

2. As a result of the Task Force Survey, the subcommittee has been able to identify contact persons and/or employers interested in forming partnerships with public schools.

3. Responses to the Task Force Survey indicate the three basic academic or general education skills which received the highest percentage of employer rankings for high expectations are:

   A. Attendance (92.3%)

   B. Listening skills (73.0%)

   C. Human Relations skills (66.9%)

   Note: In every industrial class respondents indicated the highest ranked expectation was in the area of attendance.

4. Responses to the Task Force Survey indicate the three employability or prevocational skills which received the highest percentage of employer rankings for high expectations are:

   A. Willingness to work (93.8%)

   B. Willingness to follow directions (89.5%)

   C. Ability to work with others (86.4%)

5. Based on the Stout Evaluation of Federally Funded Vocational Programs, there is a high degree of satisfaction on the part of both employers and students with the coop work experience program.

6. The coop work experience program requires a long time commitment i.e., two semesters as well as a relatively high degree of specialized skill development on the part of the student. It is designed to provide a special group of students i.e., students who have made a career choice and commitment to pursue in greater depth those skills associated with their chosen career, with an opportunity to further develop their employability and specialized job skills. It is not designed to serve the needs of the general high school population.

   Arleen Michaels, supervisor of coop training at Nicolet Instrument Corporation, provided insight into the expectations and standards of performance. When screening for student training employees, the interviewer looks for: 1) initiative, 2) dig-in attitude, and 3) work ethic concepts. She felt the following skills and experiences were valuable components of a coop education program. Students learn and/or develop:

   A. proper methods of completing job application.
   B. communication skills with fellow workers.
   C. consistent work habits.
   D. how to balance their time between working and going to school.
   E. how employer-employee problems can be worked out.
   F. students work and learn within a developed standard of performance.

7. The general high school student who plans to enter the work force after graduation needs help to make the transition from school to work. While these students may not have specialized skills to meet the entry requirements of the coop program, they do have needs to refine their employability skills and what ever job skills they have. For this program to be effective, students must be able to systematically test and explore their areas of personal interest and a ability against the realities and expections of the work place. Therefore, to be effective, there must be some prior preparation of the student, some coordination between the school and the work site during the work experience to reinforce the experiences gained, and some follow-up activities to reinforce and evaluate the learning/maturation experiences.

RECOMMENDATIONS

Schools and businesses must increase their efforts to provide structured work experiences for all students in order to assist them in refining their employability skill as well as their specialized job skills.

Goal A

School Districts are encouraged to expand, develop, and provide resources to foster occupational preparation programs as effective means of teaching employability skills and fundamental occupational specific skills.

Access for students to gain training in employability and fundamental occupation specific skills can be gained through the coop methodology and/or simulated work experiences as well as the utilization of local businesses, post-secondary training institutions, etc.

Goal B

Students should not be released from the structured school day or receive credit for work experience unless the work experience is under the supervision of a trained Work Experience Coordinator and related to a particular school course, seminar, and/or other program.

Goal C

School Districts should expand their commitment to supervised work experience programs coordinated by the school to serve all students.

Strategies for Goal C

Either independently or in conjunction with their respective pods, schools can develop "Intern Work Experiences" for students who lack the specialized skills and/or career commitment needed for participation in the coop program. To insure the educational success of these experiences, it is essential that students participatants receive active supervision from staff trained in the coursework required by the Wisconsin Department of Public Instruction for certification as a Cooperative Education or Work Experience Coordinator. teachers. Emphasis should be placed on helping students prepare for the work experience by identifying their expectations for the job. Frequent conferences between student, work supervisor, and teacher should be scheduled to help student: 1) reconcile differences between one's expectations for the work experience and the job, 2) assess their strengths/weaknesses concerning their skills and and interests, and 3) develop strategies to reinforce their strengths and improve weaknesses in their performances.

These work experiences can be scheduled to provide some opportunity for students to explore different work settings. If possible, a variety of work experiences should be included.

Goal D

In order to increase the opportunities for student participation in work experience programs (either "Intern" or coop programs), schools are encourgaed to study the possibility of conducting them for student credit during the summer vacations.

Goal E

School Districts should increase the number of participants in their School-Business Partnership programs.

Strategies of Goal E

The survey findings indicate that only 62.5 percent of the respondents interested in developing partnerships with public schools to help provide on the job training or job shadowing programs are currently involved in partnerships with public schools to help provide on the job training or job shadowing experiences.

Schools should establish a goal of contacting a set number of employers each month who indicated a willingness to participate in school - business partnerships to help provide on the job training or job shadowing programs

Goal F

The Task Force survey identified several businesses within the community that have training facilities and training programs in place which they are willing to make available for school utilization. Schools are encouraged to make every effort to contact the individuals identified through the Task Force survey so as to utilize these training facilities and training programs in the delivery of occupational skills education programs.

QUESTIONS FOR FURTHER STUDY, EXPLORATION, AND DISCUSSION

In completing its report, the subcommittee suggest two fundamental questions for further study, exploration, and discussion by Task Force members. They are:

1. Vocational training is an integral part of the high school program. However, there is a need to clarify the depth which skill training programs should attain in the comprehensive high school. What degree of in-depth skill training should high school vocational education programs attain?

2. To what extent are programs generated by the federal vocational training model integral to the role of the comprehensive high school?

ATTACHMENT I - REPORT OF THE

EMPLOYMENT AND POPULATION TRENDS SUBCOMMITTEE

Greater Madison Task Force

for Planning Occupational Skills Education

Final Report of:

EMPLOYMENT AND POPULATION TRENDS

SUBCOMMITTEE

May 11, 1984

Submitted by: Marv DeYoung
August Cibarich
David Newby
Daryush Nowrasteth

ASSUMPTIONS

The present economic conditions in the nation, our state and Dane County significantly compound the usual problems faced in doing economic projections.

The Dane County Employment Projections are based on the following conditions. Variation from these criteria would alter the projections. These assumptions are similar to the ones used in projecting the Wisconsin and the national economy or Labor Force; however there are two notable exceptions, namely the absence of an assumed rate of unemployment and the use of somewhat higher participations rates than those used in national projections.

The assumptions are as follows:

1. The United Sates will not be engaged in any military conflict, but defense expenditures will be sizable.

2. A slowly rising Gross National Product will prevail in the general economy of the 1980s, fiscal and monetary policies of the federal government will be conservative, and the rate of economic growth will be slower than during the early 1970s.

3. There will be no major changes in the basic institutions in the American economy.

4. The Labor Force will grow at decreasing rates throughout the 80s due to past declines in birth rates.

5. Long-term industry employment rends are generally expected to continue.

6. The trend toward a service-oriented economy from a goods-producing economy is expected to continue.

7. Wisconsin's Labor Force growth generally parallels that recorded and projected for the nations. Notably -- a larger percentage of women will enter the labor force and a larger percentage of people will be seeking second jobs.

8. There is no assumed unemployment rate.

9. Ecological considerations will continue to play an important role but will be somewhat blunted by energy conservation measures and budget balancing pressures.

10. Complete decontrol of natural gas prices, with a resultant price rise, could have a dampening effect on industrial expansion to the degree industries depend on this energy source and/or could find less expensive substitutes and methods.

A WORD OF CAUTION

It is, of course, possible that these assumptions will not hold true. This would alter the projections by our panel of experts.

For example, the rapid growth in the trade area during the last several decades has greatly exceeded propulation growth. This has been possible because of the rapid gains in consumers' disposable incomes. A slowdown in consumer disposable income growth, such as in a protracted, deepening recession, would alter this trend.

As another example, at some point the growth in office automation with the development of "paperless" offices, will possibly cause a decline in clerical employment. As in farming, productivity increases will permit continued production increases with decreasing labor. It is most likely that this will occur after 1990. If this evolution occurs sooner than expected, it could cause a change in the assumed long-term industry/employment trends.

A STATEMENT OF LIMITING ASPECTS

The activities of this subcommittee focused on occupational and population projections for Dane County SMA. While there are several different groups generating these projections, there is only one group which collects data -- the Department of Industry, Labor, and Human Relations (DILHR). There is a state-wide focus to their collection efforts and much of the data exists in state-wide aggrate form rather than broken-down by counties.

The challenge before this subcommittee was to find ways to factor-out Dane County data from the state-wide aggregate. Models necessary for projecting the number of people employed in various occupations within a given industry do not exist on a county level; so, models developed by analysis of state-wide data were used.

Projections in the report are based on two DIHLR reports. They are: WISCONSIN INDUSTRY PROJECTIONS TO 1990 which was published in 1982 and WISCONSIN OCCUPATIONAL PROJECTIONS TO 1990 which was published in 1893. The WISCONSIN INDUSTRIAL PROJECTIONS TO 1990 is based on industrial projections made by a panel of experts. These projections were collected earily in 1982, and they are tempered by the severe economic conditions prevalent at that time. The occupational projections contained in WISCONSIN OCCUPATIONAL PROJECTION TO 1990 where generated from the industrial projections by means of various computer models for occupational participation within given industries.

Since these two reports are the foundation for the Dane County Occupational Projections contained in this report, the reader is strongly encouraged to become familiar with both of these reports.

SPECIFIC PROBLEMS OR CONCERNS ADDRESSED

The March 8, 1983 edition of "Topics to be Addressed by Madison Task Force on Planning Occupational Skills Education" identified the following topic for this subcommittee:

> During the 1960s and 1970s, Wisconsin's economic and employment patterns were characterized by steady and continual growth even during times of natinal recessions. In fact, THE WALL STREET JOURNAL referred to Wisconsin as the "Shining Star of the Snowbelt." However, the state's economic and employment patterns for the 1980s have significantly dimmed. The state has suffered more severely than the rest of the nation during the current recession. Its manufacturing plants have shown increasing signs of aging and estimates indicate approximately 11,000 jobs have been forever lost. Major industries which have not show signs of aging are not projected to increase employment as reapidly as the rest of the nation's manufacturing sector. In additior, technological innovations in the work place paced by the advent of computers, robots, and lasers have significantly changed the employment patterns in the state. In order to plan occupational education programs for the coming decades, the Task Froce should review employment opportunities and population projections for the 1980s and 1990s.
>
> QUESTION: What trends can be projected regarding employment opportunities and the likely population of students and workers over the next 15 to 20 years?

FINDINGS

INDUSTRY TRENDS IN THE DANE COUNTY

The size of the Dane County LABOR FORCE has grown steadily between 1960 and 1980, rising from 75,700 to 169,750 respectively. This reflects a 124.2 percent growth; and an absolute growth of 94,050 workers in 20 years. However, between 1980 and 1982 the labor force declined slightly to 169,240 -- a drop of just over 500 workers which is a mere 0.3 percent.

Employment in the CONSTRUCTION industry has grown from 4,400 workers in 1960 to 7,690 in 1978. However, it has been declined 34 percent to 5,070 in 1982. The construction industry employed 5.8 percent of the labor force in 1960. Its share rose to 6.1 percent in 1964 thru 1966 but declined steadily to just under 3 percent in 1982.

Employment in ALL MANUFACTURING industries has grown from 12,200 workers in 1960 to 19,320 in 1982. This growth has been rather steady, but it peaked in 1980 at 19,980 employees. The manufacturing industries employed 17.4 percent of the Dane County work force in 1960, but its share of the labor force has declined in an irregular way. In 1982, 11.4 percent of the labor force was employeed in all manufacturing industries.

In 1960, 5,200 people were employed in DURABLE GOODS MANUFACTURING industries. This number rose irregularly until it peaked in 1980 at 9,460; and it declined 12.7 percent to 8,260 in 1982. In terms of the Dane County work force, 6.9 percent were employed in durable goods manufacturing in 1960. The highwater mark was 7.3 percent in 1966; followed by an irregular decline to 4.9 percent in 1982.

In 1960, 8,000 people were employed in NON-DURABLE GOODS MANUFACTURING industries. This number rose steadily to 10,[illegible]00 in 1978. After a slight decline to 10,530 in 1980, it rose to its highest point of 11,060 in 1982. While the number of people employed in non-durable goods manufacturing has increased, its share of the work force has continually decreased for a high of 10.6 percent in 1960 to a low of 6.2 percent in 1980. Between 1980 and 1982, there has been a modest increase of 0.3 percent to 6.5 percent of the work force in 1982.

The numbers of people employed in TRANSPORTATION AND UTILITIES has risen consistently from 4,100 in 1960 to 6,330 in 1982 for a 54.4 percent increase. However, its share of the total Dane County work force has consistently decreased from 5.4 percent in 1960 to 3.7 percent in 1982.

In 1960 15,700 people were employed in ALL TRADE industries. This number has risen steadily to 37,030 in 1982 -- an increase of 136 percent from 1960. In 1960, 20.7 percent of the Dane County work force was employed in all trade industries. In 1982, 21.9 percent of the work force were engaged in trade industries.

Separate figures for WHOLESALE and RETAIL TRADE were kept from 1968. At this time, 4,300 people were employed in wholesale trade and 18,100 in retail trade. These numbers have risen steadily since then. In 1982, 7,160 people were employed in wholesale trade and 29,870 in retail trade. In 1960, 3.7 percent of the labor work worked in wholesale trade and 15.7 percent in retail trade. In 1982, 4.2 percent were in wholesale trade and 17.6 percent in retail trade.

Employment in the FIRE (Finance, Insurance, and Real Estate) has grown some 260 percent since 1960 when 3,800 Dane County workers were employed by FIRE industries. In 1982, over 13,700 people worked in FIRE industries. Its share of the Dane County labor force has also increased dramatically rising over 3 percentage points. However, FIRE industries only account for 8.1 percent of the Dane County work force in 1982 (less than the 11.4 percent in all manufacturing, 17.6 percent in retail trade, 19.9 percent in service industries, and 32 percent in government). In 1960, only 5 percent of the Dane County labor force was employed in FIRE industries.

SERVICE industries employed 9,800 people in 1960, but it has grown steadily to 33,630 in 1982. This is an increase of 243.2 percent. Likewise, its share of the labor force has increased form 24.8 percent in 1960 to over 33.6 percent in 1982.

Over 24,800 people were employed by ALL GOVERNMENTS (local, state, and federal) in 1960. This number grew 130.2 percent to over 57,080 in 1980. This is slightly higher than the 124.2 percent growth of the entire Dane County labor force during this same period. However, when the period between 1960 and 1982 is considered, the government work force grew slightly slower than the Dane County work force rising 118.3 percent while the total Dane County work force grew 123.6 percent. This reflects a 1.8 percent drop (2,930 workers) in government employment to 54,150 workers between 1980 and 1982. The government share of the Dane County work force has varied irregularily since 1960 when 32.8 of the Dane County work force was employed in government positions. It rose to a highwater mark of 38.1 percent in 1968. However, it has declined since then to 33.6 percent in 1980 and 32.0 percent in 1982.

INDUSTRIAL GROWTH FOR DANE COUNTY

Currently, staff analysists at DILHR are developing projections of Dane County industrial growth. However, these projections will not be available until mid-summer. Therefore, two sets of projections for state-wide industrial growth will be given. One set was developed by DILHR and the other by the other by William A. Strang a noted economist at the University of Wisconsin-Madison. These projections will be given in table one below.

Table 1.

INDUSTRIAL GROWTH IN WISCONSIN 1980-1990

INDUSTRY	PERCENT OF 1980 DANE COUNTY WORK FORCE	FORECASTED STATE-WIDE INDUSTRIAL GROWTH 1980-1990 DILHR	STRANG
Construction/Mining	3.9	15.8%	16.4%
All Manufacturing	11.5	11.6%	14.5%
Transportation, Communication and Utilities	3.7	5.7%	10.5%
Trade (Wholesale and reatil)	21.9	22.3%	30.7%
Finance, Insurance, Real Estate	8.1	13.5%	42/6%
Services	19.9	33.3%	37.6%

SOURCES: DILHR internal reports; DIHLR, WISCONSIN INDUSTRY PROJECTIONS TO 1990; William A. Strang, WISCONSIN'S ECONOMY IN 1990: OUR HISTORY, OUR PRESENT, OUR FUTURE.

OCCUPATIONAL PROJECTIONS

This report presents two occupational projections for Dane County to 1990. Both reports are based on DILHR's WICSONSIN OCCUPATIONAL PROJECTIONS TO 1990. One of these projections was developed by Bob Sladky and the other by August Cibarich. These projections are given in Table 2.

The methodology used by Bob Sladky is a mechanical extrapolation of the state-wide projections to Dane County. This methodolgy assumes that the state-wide model of occupational participation in industries is directly applicable to Dane County. This method develops labor force participation ratios for each industry between Dane County and the state. These ratios are used to estimate 1980 base occupational count estimates in each industry. These 1980 base occupational count estimates are multiplied by the growth factor DILHR projects for each occupation in each industry.

August Cibarich reviewed the DILHR state-wide occupational projections as well as the mechanical projections for Dane County. Based on over 25 years of experience in labor market analysis and an in-depth knowledge of Dane County industries, he developed a second set of occupational projections tempered by his knowledge and experience.

As a result of their different approaches, both sets of projections vary. Therefore, summary data will be presented from both sets of projections. Copies of DIHLR's state-wide projections to 1990, Bob Sladky's Dane County projections, and August Cibarich's state-wide and Dane County projections are available from the Task Force Coordinator upon request.

Depending on the mtehodology used, the overall growth of the Dane County labor force from 1980 to 1990 is estimated to be between 15.1 percent and 16.5 percent. The labor force will increase by 28,027 -- from 169,805 to 197,832 in 1990. All occupational clusters are projected to grow. However, each will grow at a different rate and provide a different number of jobs as a result of industrial growth. It must be stressed, these projections are based on various, complex assumptions which may or may not be accurate. Therefore, these projections are intended to identify trends and directions rather than predict future outcomes.

Table 2.

PROJECTED INCREASE IN OCCUPATIONAL CLUSTERS
RESULTING FROM INDUSTRIAL GROWTH IN DANE COUNTY 1980 - 1990

Occupation	EXTRAPOLATION PROJECT. Percent Growth	Net Change	JUDGEMENTAL PROJECTIONS Percent Growth	Net Change
Personal Service Workers	25.2%	458	0.0	0
Sales Workers	21.3%	1,983	15.0%	1,396
Health Service Workers	21.3%	998	10.0%	470
Food Service Workers	21.0%	2,505	15.0%	1,791
Protective Service Workers	20.0%	1,389	20.0%	1,389
Service Workers - All	18.5%	6,416	18.5%	6,416
Professional, Technical & Kindred Occupations	18.5%	5,513	30.8%	2,340
Clerical - Office Machine Operatives	17.2%	264	12.0%	184
Clerical - Secretarial, Steno, & Typists	16.3%	1,222	20.0%	1,504
Clerical - All positions	16.2%	5,474	16.2%	2,234
Clerical - Other Clerical Operatives	16.1%	3,950	5.0%	1,230
Managers and Officials	15.9%	2,934	25.0%	1,596
Cleaning Service Workers	15.3%	702	25.0%	1,144
Transportation Equipment Operatives	14.3%	799	10.0%	588
Crafts and Kindred Occupations	14.2%	2,228	10.0%	1,565
Other Service Workers	13.3%	294	10.0%	226
Operatives Except Transportation	13.0%	1,197	-20.0%	- 1,841
Laborers, Except Farm	11.4%	1,280	-10.0%	-10,434
All Other Operatives	11.2%	203	-20.0%	- 364

Summary

Projections made my mechanical extrapolation project a 16.5 percent increase in the Dane County work force, rising 28,027 workers from 169,805 in 1980 to 197,832 in 1990. The three fastest growing major occupational areas by percent growth are; sales workers, 21.3 percent; all service workers, 18.5 percent; and professional, technical & kindred occupations, 18.5 percent. In absolute numbers, they are also the three fastest growing major occupational areas: all service workers, 6,416; professional, technical & kindred workers, 5,513; and all clerical workers, 5,474.

Projections made by judgmental exptrapolation project a 15.1 percent increase in the Dane County work force, rising 25,581 workers from 169,805 in 1980 to 193,386 in 1990. The three fastest growing major occupational areas by percent are: professional, technical & kindred occupations, 30 percent; managers and officials, 25 percent; and all service workers, 18.5 percent. In absolute numbers, the three fastest growing major occupational areas are: professional, technical & kindred occupations, 8,937; all service workers, 6,416; and all clerical workers, 5,474.

JOB OPENINGS

It is important, however, to distinguish the increase in occupational positions generated by industrial growth from total number of job openings in Dane County. Industrial growth is one factor in determining the number of job openings. Other factors include death, retirement, and separation which is defined by state and national labor statisticians as the number of women temporarily withdrawing from the labor force. In DILHR's WISCONSIN OCCUPATIONAL PORJECTIONS TO 1990, the hypothetical annual average number of job openings was projected. Based on state-wide estimates, the number of hypothetical annual average job openings for each occupational cluster has been developed for both sets of occupational projections for Dane County.

These projections are given in Table 3. Table 3 starts at the top of the next page.

Table 3.

HYPOTHETICAL ANNUAL AVERAGE JOB OPENINGS
FOR DANE COUNTY, 1980 - 1990

Occupation	MECHANICAL PROJECTIONS Total	Growth	Separ.	JUDGEMENTAL PROJECTIONS Total	Growth	Separ.
Personal Service Workers	117	46	71	0	0	0
Sales Workers	640	198	441	452	140	312
Health Service Workers	235	100	135	110	47	63
Food Service Workers	751	251	500	537	179	358
Protective Service Workers	448	139	309	448	139	309
Service Workers - All	1,954	641	1,313	1,954	641	1,313
Professional, Technical & Kindred Occupations	1,445	551	894	2,340	893	1,447
Clerical - Office Machine Operatives	73	26	47	50	18	32
Clerical - Secretarial, Steno, & Typists	356	122	234	439	150	289
Clerical - All positions	2,224	547	1,677	2,224	547	1,677
Clerical - Other Clerical Workers	1,235	395	840	385	123	262
Managers and Officials	1,018	293	725	1,596	460	1,136
Cleaning Service Workers	300	70	230	487	114	373
Transportation Equipment Operatives	233	80	153	163	56	107
Crafts and Kindred Occupations	720	233	497	504	156	348
Other Service Workers	67	29	38	53	23	30
Operatives Except Transportation	418	120	298	-184		
Laborers, Except Farm	454	128	326	-116		
All Other Operatives	78	20	58	-36		

Summary

Using the extrapolations projections, the four major occupational area having the largest hypothetical annual average number of job openings are: all clerical workers, 2,224; all service workers, 1,954; professional, technical and kindred occupations, 1,445; and managers and officials, 1,018.

Using the judgemental projections, the four major occupational areas having the largest hypothetical annual average number of job openings are: professional, technical & kindred occupations, 2,340; all clerical workers, 2,340; all service workers, 1,954; and managers and officials, 1,596.

FURTHER CONSIDERATIONS

Of the four fastest growing major occupational areas, two require further training after high school, i.e. professional, technical & kindred occupations and managers and officials. The other two, all clerical workers and all service workers, are readily open to high school graduates. Most clerical positions require keyboarding skills. However, many of the service positions require few, if any vocational skills and pay the minimum wage -- $7,000 per year.

The question arises, "What types of vocational/occupational skills should high schools equip graduates with in order to provide these graduates with an opportunity to enter jobs paying 130 percent of the minimum wage -- $8,710 per year?"

This subcommittee feels that the following skills are essential: the basic academic skills -- competency in reading, writing, arithmetic, etc.; keyboarding; basic tool skills; marketing skills; human relations skills; and positive work habits.

EMPLOYER SURVEY RESULTS

The Task Force surveyed over 2,250 employers in the municipal governmental units served by the school districts participating on the Task Force. Various sampling procedures were used to identify these empolyers. Random selection was used to identify 10 percent of the employers employing between zero and three employees and to identify 20 percent of the employers employing between four and nine employees. All employers employing ten or more employees were surveyed. Over 695 responses were received for a response rate of 30.5 percent.

34.2 percent of the employers indicated that for various reasons they would NOT hire high school graduates. The other 65.8 percent identified 955 job titles which they would offer to a high school graduate. When grouped into occupational areas, four groups accounted for over 66.5 percent of the 955 job titles. These four areas were:

1. Clerical jobs -- approximately 32 percent. Job titles included: account clerk, bookkeeper, clerical operative, data entry operative, file clerk, secretary, teller, word processing operative, etc.

2. Sales jobs -- approximately 8.5 percent. Job titles included: cashier, driveway sales, route sales, sales clerk, etc.
3. Restaurant/food service jobs -- approximately 6 percent. Job titles included: waitperson, salad cook, kitchen help, food service worker, dishwasher, cook, bus person, etc.
4. Laborer, operative, service jobs -- approximately 20 percent. Job titles included: delivery, driver, truck driver, housekeeper, janitor, laborer, maintenance worker, warehouse worker, etc.

Employers were also asked to identify the entry skills high school graduates would need for these positions. Employers identified 1,604 skills for 683 job titles. Table 4. identifies 827 or 51.6 percent of these skills or the 20 skills which were listed most frequently.

Table 4.

THE TWENTY MOST FREQUENTLY LISTED SKILLS
NEEDED BY HIGH SCHOOL GRADUATES TO GAIN ENTRY LEVEL POSITIONS

Skill	Frequency	Skill	Frequency
Typing	209	Bookkeeping	30
Math	90	Grammar	27
Communication	60	Shorthand	24
Filing	60	Writing	19
Spelling	49	Handle Money	18
Reading	40	Common Sense	16
Computer/CRT/WP	39	Office Machines	16
Telephone	38	Prior Experience	12
Calculator	36	Business Machines	8
Mechanical Ability	32	Accounting	7

POPULATION TRENDS

The Demographic Services Center of the Wisconsin Department of Administration has recently completed population projections for all counties in Wisconisn. Between 1980 and 1990, they are projecting Dane County's entire population to grow 10.6 percent, rising 34,342 from 323,545 to 357,887. Dane County's work force, i.e. people of working age 15 - 74, is expected to grow from 247,136 in 1980 to 276,014 in 1990. This is an increase of 28,878 people or 11.7 percent.

In 1980, there were 169,805 people working in Dane County. This amounted to 52.48 percent of the entire population or 68.71 percent of the work force population, i.e. ages 15 - 74. Assuming these participation rates to be constant, the work force in 1990 will grow to 187,821 based on the growth of the entire population. It will grow to 189,649 based on the growth of the work force population ages 15 - 74. This reflects a growth of between 18,016 and 19,844 respectively.

In the Occupational Projections, however, the mathematical extrapolation projection method estimated a 16.5 percent growth in jobs. The judgemental projection method estimated a 15.1 percent growth in jobs. These projections reflect increases of 28,027 and 25,581 respectively. So, if all things remain constant, there could be a short fall in the number of people in the work force ranging form 5,697 to 10,009 workers. However, there are a number of people presently unemployed in Dane County. In addition, the University of Wisconsin - Madison will continue to provide a large poool of highly skilled, part-time workers for the Dane County Work Force. As a result, employment in the Madison/Dane County SMA will continue to be highly competitive with the better jobs tending to go to the more skilled workers.

CONCLUSIONS

1. Occupations such as machine operatives and general laborer will have either low or negative growth bewteen 1980 and 1990. These jobs have traditionally provided entry level jobs for both high school dropout as well as general course (versus college prep and Capstone-prepared) high school graduates. As a result, high school completion with vocational training will become more essential to students wishing to enter the job market after high school graduation.

2. Occupational areas such as professional, technical and kindred occupations and managers and officials will grow rapidly in Dane County. Students wishing to enter these professions must plan for additional, post-secondary training.

3. Service occupations will grow rapidly. While there will be strong growth in these areas, these positions require little skill and tend to pay close to minimum wage. To be competitive for the better paying jobs in the service occupations, students will need basic academic skills and employability skills.

4. Clerical occupations will experience steady growth which will keep pace with Dane County's overall projected industrial growth. However, office automation will increase replacing low skill clerical jobs such as typing and filing. To be competitive in the future, students entering these occupations will need good keyboard, basic computer operation, and human relations skills in addition to strong basic academic and employability skills. Telephone, shorthand, bookkeeping, and/or accounting skills will provide a competitive advantage. These skills should be taught and available in high school courses.

5. Despite the fact that occupational projections indicate jobs will grow at a 15.1 to 16.5 percent rate while the work force is projected to grow at a 10.6 to 11.7 percent rate, employment in Dane County will remain very competitive because the University of Wisconsin - Madison will continue to provide a large pool of skilled, part-time workers. Therefore, high school graduates entering the work force immediately after high school will need strong vocational/ occupational preparation to secure good positions.

6. Despite shifts in the composition of the workforce (in particular the increase in service and profession/technical jobs and the decline in manufacturing and operative jobs), those high school graduates who do not go on to technical school or college will be able to secure jobs that pay approximately 150 percent of minimum wage if they have acquired needed skills in high school.

PREAMBLE

High school graduates function in three basic areas: those who go directly into the work force, those who go to technical school, and those who go to college and/or university. All students should take one or more courses in a vocational area such as Business Education, Distributive Education, Agriculture, Industrial Technology, Health, Home Economics, etc. But these recommendations are directed especially toward those students who go directly into the work force.

RECOMMENDATIONS

In order for high school graduates to succeed in Madison's competitive job market, well planned, high quality and effectively occupation/vocational education programs must be maintained by all local school districts. Emphasis must be placed on technology that provides insights, background, and academic awareness to the specific discipline. Particluar emphasis should be placed on programs which train students for occupations that are critical for the local labor market's needs, as well as those that provide some form of school supervised/coordinated work experience.

Goal A

In order for high school graduates to compete effectively in the Madison/Dane County labor market, they must be equipped with good basic academic skills such as reading, writing, mathematics, science, etc.; keyboarding skills; human relations skills; and positive work habits. In addition, fundamental occupation specific skills basic to the student's elected area of occupational training should be encouraged.

Strategies for Goal A

1. Basic skills in reading, writing, mathematics, and science are as necessary to the high school graduate immediately entering the workforce as for those students going on for further education. This will become increasingly true as the pace of technological change quickens and the ability to learn new skills and techniques becomes the most important element of employability. Furthermore, those jobs which in the past have not require basic skills will increasingly require reading and computations skills (e.g. the building service worker will need reading skills to operate automated machinery or to handle toxic cleaning chemicals.)

2. High schools must at a minimun provide the following "vocational" or skill courses: clerical (typing or word processing) plus basic keyboarding; basic principles of bookkeeping and accounting; metal and wood working required to provide mechanical skills and familiarity with tools and safety procedures; and "marketing."

3. High school should provide basic computer courses. The objectives of these courses should be to reinforce keyboard skills and to teach the principles of computer operation and capability. It must be kept constantly in mind that employers need workers with overall familiarity with the fundamental occupational specific skills. The employers themselves will provide on-the-job training on their particular equipment and procedures.

4. High schools should integrate training in employability skills training throughout the entire curriculum. This includes skills such as filling out a job application, developing lists of acquired skills and experiences, the importance of punctuality and appropriate dress, how to look for a job, human relations skills, communication skills, etc. Furthermore, all high schools should develop ways to integrate career development experiences throughout the entire curriculum so all students can get a sense of what different sorts of jobs are like.

Goal B

Since information concerning the local labor market is fundamental to well planned, high quality and effective occupational/vocational education programs, school districts must maintain adaquate data on the labor market as well as student placement upon graduation.

Strategies for Goal B

1. Local districts should, on the basis of enrollment, jointly provide resources needed to fund an occupational/vocational educational planner. This individual would be charged with the responsibility of providing local area school districts with appropriate labor market and graduate follow-up data.

2. Periodically, special Task Forces should be formed to study changes in the local labor market giving particular attention to how the skill requirements of various jobs may have changed as well as the demand for various occupations in the local area.

ATTACHMENT J - REPORT OF THE

PROGRAMS TO KEEP SCHOOLS AND SCHOOL FACULTIES CURRENT SUBCOMMITTEE

Greater Madison Task Force

for Planning Occupational Skills Education

Final Report of:

PROGRAMS TO KEEP SCHOOLS AND SCHOOL FACULTIES CURRENT

SUBCOMMITTEE

May 8, 1984

Submitted by: Gordon McChesney
Pat Fleming
Jim Worthington

A Statement of Limiting Aspects

The format of this subcommittee report is somewhat different than other reports submitted to date. Because of the charge given to this subcommittee, the committee members are attempting to be responsive to other subcommittee reports. We consider this report to be a preliminary report and welcome your recommendations.

SPECIFIC PROBLEMS OR CONCERNS ADDRESSED

The March 8, 1983 edition of "Topics to be Addressed by Madison Task Force on Planning Occupational Skills Education" identified the following topic for this subcommittee:

> As the needs of the work place for skilled workers change as a result of economic and technological evolution, the educational programs within secondary schools must also evolve. These changes impact all areas of the high school curriculum and may affect the content of all courses. As the curriculum changes, schools and school faculties must also change. Therefore, the Task Force should explore the types of programs needed to keep schools and school staffs current with occupational changes.

Question: What types of programs are needed to keep schools and school faculties current if occupational skills development opportunities are to be optimized for high school youth?

Recommendation #1

Statement
Attract and retain teachers who are enthusiastic and effective vocational educators regardless of area of concentration.

General Findings
Too often in the past the recommendations given for improving education were more money, more facilities and equal opportunity. Only recently did society begin to deal with the quality of instruction and attracting and retaining quality staff. Enrollment projections suggest a developing teacher shortage by the mid or late 1980s, with serious shortages in specialized fields already a problem. In the past, the schools benefited from the fact that women lacked many other career options. Now men and women look to other professions. Studies show that the shortage in some specialized fields is due in part to the increasing numbers of people employed by business at a higher pay rate than education can offer. The negative facts of teaching are not new -- low pay, little power and inadequate recognition. But given the importance of teachers, and in turn education, to the overall welfare of the community and nation and the increasing competition from other professional fields for well trained people, the school districts involved in this project must consider ways to recognize and reward excellence in teaching. One of the primary areas of concern is the lack of a career ladder for classroom teachers.

Recommendation
The State Legislatures and members of Congress should pass legislation that will aid in accomplishing the above statement.

Strategy
Formally and informally, urge local school districts, State Legislatures, and Congress to review the programs brought before their respective bodies that pertain to this area and pass legislation that will aid in accomplishing the above statement.

Recommendation #2

Statement
Institutions of higher education which are preparing vocational education personnel should re-examine the course work and the requirements for the selection and education of prospective teachers.

General Findings
Through a survey of Wisconsin Vocational Educators conducted by WASCA, DPI and the University of Wisconsin-Madison School of Education, professionals in the field identified the most important skills, competencies, or understandings that should be mastered before initial training was completed. The teachers complain that course work at the university level does not prepare new staff for practical problems such as discipline problems, lack of motivation among students, or additional problems of society that students bring with them to the classroom. In some cases, the student teacher does not have the needed background in his/her own subject matter.

Recommendation
The universities in the state need to review the survey on "Preparation and Development of Vocational Educators" as well as other pertinent reports as they re-examine their course work and other requirements.

Universities in the state should consider establishing opportunities for professors of education to have periodic classroom experiences such as classroom visits.

Strategy
Develop additional programs for professors similar to "The Day in the Classroom" program in operation at the University of Wisconsin, Platteville campus.

A committee should be formed to develop an exchange program between the University and area school systems.

Recommendation #3

Statement
All vocational educators should have the opportunity to regularly participate in appropriate professional development programs that would update their overall professional and instructional skills as well as new course content.

General Findings

Teachers need to be stimulated and challenged in their profession in order to remain vital and effective in the classroom. After being in education for a number of years, memories of the reality of life outside school for some becomes dim. Teachers should keep in contact with the world of business/industry, because teachers are training students to become functional members of society. Teachers need to continue to increase their knowledge and understanding of current conditions in the work place.

At the same time, teachers are asking for relevant inservice classes, prepared by the school systems, many times in conjunction with the local university in order to learn new techniques. Teachers will take inservice classes if the courses are relevant to the classroom situation, if the courses meet their needs and if costs are reasonable.

Recommendation

Businesses in the Madison metropolitan area must be willing to open their doors to educators. There must be a working partnership between educators and business people to provide staff development for people in education. One phase of the program would be to shadow workers for a period of time and the other phase of the program would be to offer summer employment opportunities to educators.

Through the Madison Exchange, CESA 15, BECC and the University, continue to develop meaningful inservice classes for teachers.

Provide incentives to insure that all classroom teachers receive continued education in this area.

Continue to develop and better utilize advisory committees.

Identify at the state level technological changes and the effect these changes will have on secondary education.

Strategies

Establish a committee of vocational educators and people in business and industry from the Madison metropolitan area to make recommendations for inservice programs:

- a need for upgrading curriculum
- a need for improving instructional skills
- a need for learning about students who have special needs and how to teach them most effectively
- a need for inter-level and interdisciplinary communication and cooperation
- a need for gaining techniques to better communicate with professionals in other fields
- reimburse teachers for approved and/or required course work completed at universities/colleges.

Establish an ongoing regional advisory committee for the purpose of identifying technological changes occurring in the nation, state, and region and to make recommendations to local school districts.

Establish in each high school a local committee to keep abreast of the recommendations received from the state advisory committee mentioned above and incorporate specific recommendations when applicable.

Recommendation #4

Statement

As the needs in the work force change, educational programs within the secondary school must also evolve. The prior statement must include curriculum changes in the academic areas.

General Findings

Too often in the past the recommendations for improving vocational education did not mention academic programs and staff. Academic staff members, in general, do not have a background in vocational education and find it difficult to relate to this part of the total educational program. In many cases, they lack the understandings, skills, and experiences to be effective in this area.

Recommendations

Through the Business and Education Coordinating Council (BECC), the Madison Exchange, Cooperative Educational Service Agency 15 (CESA), and the University system, develop meaningful professional growth classes for academic teachers.

The Universities should review their teacher education programs in order to incorporate the needs of vocational education into the curriculum and to sensitize department professors in order for them to relate to this area.

Provide incentives to insure that all classroom teachers receive continued education in this area.

Provide school wide professional growth programs to sensitize staff to the needs of society and the vocational needs of students. Included would be an emphasis on their role within the total program.

Strategy

Establish a committee of vocational and academic educators as well as people in business and industry from the Madison metropolitan area to make recommendations for professional growth programs geared to the needs of academic educators.

ATTACHMENT K - REPORT OF THE

SECONDARY/POST-SECONDARY ARTICULATION SUBCOMMITTEE

Greater Madison Task Force

for Planning Occupational Skills Education

Final Report of:

SECONDARY/POST-SECONDARY ARTICULATION

SUBCOMMITTEE

May 7, 1984

Submitted by: Donald McCloskey
Jim Olstad
Dean Wessels

ASSUMPTIONS

1. There is a need for more articulation between secondary schools and post secondary educational institutions in the Greater Madison Area.

2. There are various different schemes for articulation presently in place throughout the state.

3. It is possible to improve the articulation process in the Greater Madison Area through better and/or increased use/allocation of resources (people, time, and money).

4. Some secondary programs duplicate certain phases of present post secondary programs.

5. Improved articulation processes require improved communication and cooperation among all educational agencies.

6. Some secondary schools have the personnel and equipment necessary to teach certain vocational courses.

A STATEMENT OF LIMITING ASPECTS

This subcommittee focused on institutionalized vocational education articulation processes between public school districts, between public schools and Wisconsin VTAEs, and between public schools and two Madison area proprietary vocational training institutions, i.e., Madison Business College and Wisconsin School of Electronics.

The subcommittee did not consider vocational education articulation models between public schools and between public schools/post secondary vocational training institutions in other states or countries.

The subcommittee did not consider articulation models between public schools and Madison Area proprietary vocational training institutions which provide training in areas such as cosmetology and/or truck driving.

When reviewing statewide models for articulation between public schools and district vocational schools, the subcommittee assumed there would be no major change in the organization of Wisconsin's vocational training delivery systems. The impact of alternative delivery systems such as area wide vocational high schools were not considered in the subcommittee's review of articulation programs.

The subcommittee focused on institutionalized articulation processes. It did not review the informal, one on one articulation activities which have produced great benefit in the area such as teachers from MATC serving on high school advisory committees and vice versa.

SPECIFIC PROBLEMS OR CONCERNS ADDRESSED

The March 8, 1983 edition of "Topics to be Addressed by Madison Task Force on Planning Occupational Skills Education" identified the following topic for this subcommittee:

> Over the years in Wisconsin, various institutions have provided occupational skills education for the state's residents. Funded by abundant dollars from the federal government, institutions such as the secondary schools; vocational, technical, and adult institutes; as well as private post secondary technical schools have independently developed a variety of occupational skills educational programs which, in many instances, duplicate training programs and efforts. As a result, students moving from one level to another or from one institution to another may repeat prior learning. Therefore, the Task Force should explore ways to effectively articulate between the various institutions and to provide students with coordinated, sequential learning programs in the various occupational fields.
>
> Question: What arrangements can be made to effectively articulate between high school curriculums and curriculum of post secondary institutions and to develop coordinated, sequential learning programs for the various occupational fields?

As the subcommittee started its work, two major forms of articulation began to emerge: contracting and advance placement. In contracting, a school district(s) establishes an agreement with a local vocational institution to provide courses for high school students. Details such as location, time and funding vary but in most instances, students receive credit at the high school level as well as the VTAE. In the advance placement programs, students are able to "bypass" various introductory courses at a VTAE on the basis of previous learning and/or experience.

As the subcommittee progressed, it became readily apparent that articulation between local public school districts was an important aspect of vocational education. Therefore, the scope of the subcommittee's review was enlarged to study ways various Wisconsin school districts share curriculums, programs, students, and facilities for vocational education.

CONCLUSION/RECOMMENDATION

It is possible to improve vocational education in the Madison/Dane County area by improving articulation between public schools and Madison Area Technical College as well as between the public schools serving Madison/ Dane County employment area.

Goal A

A Vocational Education Consortium should be formed involving school districts in Dane County and MATC personnel in order to:

1. improve articulation between public school districts and Madison Area Technical College concerning both contract education (pool funds) as well as advance placement to reduce needless duplication in educational experiences of youths.

2. provide opportunities for participating public school districts to share facilities/personnel/students and educational programs in order to maintain the comprehensive vocational educational program needed to supply the trained manpower needs of the Madison/Dane County employment area.

3. serve as a mechanism for implementing the recommendations of the Greater Madison Task Force for Planning Occupational Skills Education.

Strategies for Goal A

Note: These strategies are presented as possible ways to organize and operate Vocational Education Consortia among Dane County School Districts. They are present to initiate discussion and planning among Districts. Ultimately, the cooperative agreements worked out between participating Districts will reflect the mutual agreements they develop concerning issues such as site, course content/curriculum, instructors, supervision, scheduling, transportation, costs, evaluation, etc.

Note: Administrators of School Districts participating in these cooperative agreements must make sure that all problems in these areas have been satisfactorily addressed prior to the inception of the program.

Note: This pod/consortium structure is intended to facilitate the operation of reorganized CESA districts effective July 1, 1984.

1. This Consortium of Dane County schools can be divided into four geographical pods to improve the communication and liaison capabilities of the individual participating school districts. A tentative pod structure within the Consortium could be:

North West Area
Lodi +
Madison Memorial
Middleton
Pownette +
Sauk Prairie
Waunakee
Wisconsin Heights

South West Area
Belleville
Madison West
Mount Horeb
Verona

North East Area
DeForest
Madison East
Marshall
Sun Prairie
Waterloo +

South East Area
Cambridge
Deerfield
Madison LaFollette
McFarland
Monona Grove
Oregon
Stoughton

+ schools not in Dane County

2. Governance of these Vocational Education pods will be identified as administrative, program/curriculum, and personnel concerns. They are as follows:

A. Administrative

(1) Policy concerns would be determined by the respective superintendents of the participating school districts and the Assistant Director and Director of Instruction at Madison Area Technical College or his designee. They would serve as an executive board. The administrative details of daily operation would be managed by the building principals, local vocational education coordinators of the schools involved, and a vocational area director from MATC assigned to meet with each administrative operational governing body in order to promote secondary/post secondary articulation.

(2) For programs between public school districts, the recommended initial fee for each student would be a nominal fee designed to cover the cost of the teacher's salary on a per student basis (average teacher salary divided by five classes divided by 20 students per class) as well as consumable materials used in instruction, depreciation of equipment and whatever other reasonable costs are mutually agreed upon by the administrators of participating school districts.

(3) For programs between public school districts and MATC, fees will be negotiated with parties involved according to course content, course classification, and current guidelines giving public school/VTAE joint courses.

(4) For programs between public school districts, state general education aids would be retained by the student's home district.

(5) For programs between public school districts, athletic conference eligibility would remain with the home school district.

(6) For programs between public school districts as well as between public school districts and MATC, these classes should be scheduled during the regular school day -- especially using double periods at the start or the end of the school day -- insofar as possible. Consideration should also be given to offering these classes at unique times such as Tuesday and Thursday evenings from 6:30-9:00 PM or on Saturdays for a five-hour period.

(7) A problem arises because contracts for teachers are based on spring student registrations. Frequently, the number of students taking a course in fall is significantly different than the number that registered in spring. As a result, one school district would contract for the services of a teacher and would schedule a course on the basis of the spring

student registrations from another district. There are several possible solutions to this problem which District administrators can consider. They are:

a. Paricipating school districts incur fiscal liability for the number of students they register for a course at the time of spring registration. This amount would not be reduced if fewer students than registered in spring actually attend the course -- unless additional students from other districts who did not register for the course in spring attend in fall.

b. Charge a nominal attendance deposit such as $50 which is refundable with interest upon completion of the course. Provisions would need to be made for students from low income families.

c. Any other solution which is mutually agreeable to the participating school districts.

(8) For programs between public school districts and MATC, transportation of students to and from home and host districts would be the responsibility of the home school district to resolve as it felt to be in the best interest of its educational program.

(9) Each public school district participating in shared programs with other public school districts and/or MATC will identify a staff person as a liaison or contact person whom other participating institutions could notify concerning attendance, discipline, special needs or other related student needs.

(10) This pod structure is not intended to be so rigid as to prohibit schools within the same or different pods from coordinating, developing and implementing their own specific programs.

B. Program/Curriculum

(1) The structure identified in 2.A(1) above will have program responsibility for the daily operation of established programs. The local building principal and LVEC would be charged with efficient day to day operations of the ongoing educational program.

(2) Initially, the development of a specific curriculum would be the responsibility of the host school. In time, the curriculum would be determined by curriculum committees composed of host teachers from the four pods as well as vocational area teachers from MATC so a systematic, coordinated curriculum would emerge in all Dane County public high schools and MATC. In addition, maximum use should be made of either existing or proposed advisory committees in order to develop job relevant curricula.

(3) This pod structure is not intended to be so rigid so as to prohibit schools within the same or different pods from coordinating, developing, and implementing their own specific programs.

(4) This pool/consortium structure is intended to facilitate the operation of reorganized CESA districts effective July 1, 1984.

C. Personnel

(1) Questions with regard to teacher certification will be resolved in accord with appropriate legislation in effect as of July 1, 1984.

(2) If the establishment of a pod program in one District necessitates the hiring of new and additional personnel, priority consideration should be given to appropriately certified/qualified teachers who may be on lay off from another participating school district. This priority consideration does not in any way guarantee any "job rights" or "mandate" the hiring of a teacher on lay off.

Goal B

A Coordination and Articulation Council (model - Panel for Articulating Vocational Education used in Waukesha County VTAE District) should be created to:

1. provide coordination for vocational education activities of the pods.
2. provide a framework for directing the curriculum development efforts of the vocational areas involving personnel from public schools as well as MATC so courses can be developed providing a systematic program for students as they progress through local high schools and post secondary institutions.
3. serve as a mechanism for implementing the recommendations of the Greater Madison Task Force for Planning Occupational Skills Education.
4. providing programs supportive of identified secondary needs.
5. projecting needs for future programs based on the needs of the Madison/Dane County employment area.
6. establishing functional liaison links everywhere.
7. constructing joint curriculum development activities.

Strategies for Goal B

1. In order to initiate the process of organizing the Consortium and the related pools, that Superintendent Rosenthal, Superintendent Hafeman, and Director Mitby assume joint responsibility for the creation of the Consortium and the related pods.

2. Prior to the creation of the Consortium and pods, a small steering committee, comprised of the very top level administrators -- from all Dane County secondary schools and MATC -- must meet to establish and to affirm common educational, philosophical, and financial goals as well as to publish the ground rules for the functions, composition, and responsibilities of the Consortium and related pods.

3. The Coordinating and Articulation Council will be composed of the Superintendents of all Dane County school districts, the Director of District Four (MATC), and the Assistant Director of Instruction for District Four (MATC).

4. The day to day activities of this group will be directed by an executive committee consisting of: the Superintendent of the Madison Metropolitan School District, the Director of MATC, the Public School representative on the MATC Board, and one superintendent elected from each of the four vocational education pods.

SUMMARY

The establishment of the Consortium and the CAC in themselves are processes that must respond to questions involving:

a. goals of the organizations

b. leadership in each organization

c. individual responsibilities

d. school district responsibilities

e. curriculum responsibilities

f. financial responsibilities (tuition/cost)

g. instruction - supervision, personnel

h. use of equipment

i. transportation

j. scheduling

k. impact of the various Negotiated Agreements.

ATTACHMENT L - REPORT OF THE

TECHNOLOGICAL CHANGE SUBCOMMITTEE

Greater Madison Task Force

for Planning Occupational Skills Education

Final Report of:

TECHNOLOGICAL CHANGE

SUBCOMMITTEE

May 17, 1984

Submitted by: Stuart Sears
Nancy Everson
John Krauss
Russel Weisensel

ASSUMPTIONS

1. Our society, our economy, and our political institutions are moving from the Industrial Age to the Information Age. The development of the Information Age will create as much upheaval in our social, economic and political institutions/patterns as the Industrial Revolution did.

2. The Information Age will be based on computer technology, robot technology, and bio-genetic technology. For the first time in our human evolution, man will be able to manipulate, control, and change biological genetic substance; create a worldwide communications and information network of an extent and effectiveness never dreamed before; and throw off the shackles of his planet in the course of spreading out in the universe.

3. Technological change is inevitable. However, its pace is unknown because implementation depends on several diffuse, uncontrollable forces. Technological changes which impact our social, economic, and political institutions will come at a faster and faster pace. There is danger that its pace will overload some people's ability to adapt.

4. The key skill required of future high school graduates is learning how to learn -- how to formulate questions and find answers -- as well as being able to adopt to changing situations, to manage stress with greater facility, and to continue learning and career development throughout their lives.

5. Since information is growing at a faster rate than our current ability to present information, students presently in school must be willing to learn more during their time in school than previous generations.

6. In the future, keyboarding skills will be a fundamental, basic skill which will be required in over 80 percent of occupations.

7. The improvement of the teaching staff is the key to the improvement of the curriculum.

8. Changes in recommended courses for college entrance as well as various national reports critical of education have refocused education's emphasis to teaching communications, English, math, science, social studies and foreign languages.

A STATEMENT OF LIMITING ASPECTS

This subcommittee focused on future developments in technology, biogenetics, transportation, etc. Its objective was to set goals and directions for school districts to pursue rather than review the limiting aspects of the present. The major limiting factor was the human inability to predict the future with the same degree of accuracy with which we can review the past.

SPECIFIC PROBLEMS OR CONCERNS ADDRESSED

The March 8, 1983 edition of "Topics to be Addressed by Madison Task Force on Planning Occupational Skills Education" identified the following topic for this subcommittee:

> Changes in the work place are occurring so rapidly that it is difficult for school programs to keep pace. By the time new equipment can be ordered and installed, technological developments have frequently antiquated the new equipment. As a result of cuts in federal funding and constraints on the local tax base, schools are finding the costs of funding occupational educational programs increasingly difficult to bear. Therefore, the Task Force should review present occupations skills curriculum in relation to the changes in the work place and develop strategies for making changes when and where appropriate.
>
> Question: What significant technological changes are expected over the next 15 to 20 years and what impact will they have on the curriculum of occupational skills education?

As the subcommittee started its work, it became apparent that the exact timeline for implementation of technological changes would be impossible to determine as well as the exact impacts these changes would have on the way work is being done. Therefore, the subcommittee adopted a more general approach.

As the subcommittee's work progressed, it also became apparent that occupational skills education for the future impinged upon every discipline of the school as well as demanded the development of new courses. With this awareness, there developed the realization of the need for adequate training and development of current teachers.

CONCLUSION/RECOMMENDATION

If America is to be competitive in the future and if students are to be equipped with suitable occupational skills for work in the future, schools must continually review, revise, and update their entire curriculum in regard to the technological/information revolution. Particular care must be given to removing outmoded curriculum content as well as developing new curriculum content areas where necessary. Therefore, we propose the following goals.

Goal A

The public schools should provide a strong, fundamental, comprehensive curriculum which will provide all students with a basic knowledge, facility and appreciation of traditionally recognized human capabilities to reason, to communicate, to create, etc.

Strategies for Goal A

1. If America is to remain competitive in the future, graduation requirements, length of day, and length of school year may very well have to be increased.

2. A balance must be maintained in the curriculum so all basic academic courses are taught. Art, English, social studies, and foreign languages are as important in the computer age as science, math, and physical education.

Goal B

Schools must develop new programs and/or expand existing programs to improve the technological literacy as well as the information processing abilities of all students.

Strategies for Goal B

1. Students entering high schools should possess basic keyboarding skills. A computer/word processing lab supervised by qualified personnel should be made available to all students before, during, and after the school day so all teachers can require significant written assignments to be typewritten.

2. All high school graduates should have sufficient experience with a computer and its operations so as to be able to identify and define objectives and tasks for computer assistance, to select the appropriate software programs, and to properly operate the computer and selected programs to accomplish the tasks identified.

3. With all deliberate speed, all high schools should establish departments of computer use and/or provide for the integration of computer education throughout the entire curriculum so students can receive training in the fundamentals of programming, computer operations, computer applications, as well as systems analysis/planning.

4. When planning the purchases of new high tech equipment for vocational labs, schools should consult with local advisory committees to insure that equipment purchased for school vocational labs is congruent with equipment commonly used in today's society and employment world.

Goal C

Schools must develop new programs and/or expand existing programs to reorient students toward an ongoing career development and life long continued learning/retraining. High school graduation can no longer be viewed as a termination point for education/training and as an initial point for life long career. High school graduation is, rather, the beginning of a life long career evolution. Continued learning/retraining at either the college or technical school level in addition to on-the-job training and independent self improvement efforts will be an ongoing necessity.

Goal D

Schools must revise current courses or develop new programs so: (1) students can easily and comfortably adapt to a rapidly changing technological, social and economic environment; (2) possess a basic understanding of the ethical and value related impacts of biogenetic and technological changes; and (3) possess a basic understanding of the evolving biogenetic and technological developments and their interface with humans.

Strategies for Goal D

1. Courses should be revised or developed so students understand the impact past technological changes have had on social, economic, and political institutions.

2. Courses should be revised or developed so students understand how to project/estimate the future impact of possible technological changes as well as the fundamentals of planning.

3. Courses should be revised or developed so students become familiar with the basic scientific, social, political, and economic forces which govern technological development and implementation.

Goal E

Schools must provide adequate inservice training programs and adequate curriculum development resources so teachers can renew their knowledge and application of their basic disciplines to today's information/technological oriented world.